MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

JOE SERNA, JR. BUILDING

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

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Ms. Doreene D'Adamo

Mr. Ronald O. Loveridge

Mr. Ron Roberts

Dr. Daniel Sperling

Mr. Ken Yeager

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Mr. James Goldstene, Executive Officer

Mr. Tom Cackette, Chief Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Mr. Bob Fletcher, Deputy Executive Officer

Ms. Lynn Terry, Deputy Executive Officer

Ms. Mary Alice Morency, Board Clerk

Mr. Jeff Lindberg, Air Pollution Specialist, PTSD

Mr. Andrew Panson, Innovation Strategies Branch, Mobile Source Control Division, MSCD

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Chris Abarca, Azure Dynamics

Mr. Mel Assagai, Navistar

Mr. James Chen, Tesla Motors, Inc.

Mr. John D. Clements, Kings Canyon Unified

Mr. Nicholas Cole, Car2Go North America

Mr. Jay Friedland, Zero Motorcycles

Mr. Marc Geller, Plug In America

Mr. Jamie Hall, Calstart

Ms. Bonnie Holmes-Gen, ALA

Mr. Matt Sloustcher, CODA Automotive

Mr. Reede Stockton, Center for Community, Democracy, and Ecology

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PROCEEDINGS

CHAIRPERSON NICHOLS: Good morning, ladies and gentlemen. We have a very nice agenda this morning. It's not every day you get to vote on giving out money and present awards to deserving people. We're very happy to be here.

I'd like to open this morning's meeting, before we do the roll call, we will say the Pledge of Allegiance to the flag. Please stand.

(Thereupon the Pledge of Allegiance was Recited in unison.)

CHAIRPERSON NICHOLS: Thank you.

We will now have the Clerk will call the roll.

BOARD CLERK MORENCY: Dr. Balmes?

Ms. Berg?

BOARD MEMBER BERG: Here.

BOARD CLERK MORENCY: Ms. D'Adamo?

BOARD MEMBER D'ADAMO: Here.

BOARD CLERK MORENCY: Ms. Kennard?

BOARD MEMBER KENNARD: Here.

BOARD CLERK MORENCY: Mayor Loveridge?

Mrs. Riordan?

BOARD MEMBER RIORDAN: Here.

BOARD CLERK MORENCY: Supervisor Roberts?

BOARD MEMBER ROBERTS: Here.

BOARD CLERK MORENCY: Professor Sperling?

BOARD MEMBER SPERLING: Here.

BOARD CLERK MORENCY: Dr. Telles?

Supervisor Yeager?

BOARD MEMBER YEAGER: Here.

BOARD CLERK MORENCY: Chairman Nichols?

CHAIRPERSON NICHOLS: Here.

BOARD CLERK MORENCY: Madam Chairman, we have a quorum.

CHAIRPERSON NICHOLS: Great. Thank you.

Couple of things, housekeeping items. If there is anybody who is here and wishes to testify, I hope you've signed up online or filled out a speaker card. But if you haven't, please do see the clerk and fill out a card.

If you have signed up online, you don't have to fill out a card, of course. But we do need you to check in with the clerk so she knows you're here.

We will, as usual, impose a three-minute time limit, but we will receive written testimony of any length. And we'd appreciate it if you don't try to read it but just summarize it so you can say within the time so we can really focus on what you have to say.

The emergency exits are in the back of room as well as on the side here. In the event of a fire alarm, we need to evacuate this room and go downstairs and outside the building until we get an all-clear signal. And I think that is it for housekeeping.

So let's get started then with our first item, which is the AB 118 Air Quality Improvement Program funding for fiscal year 2011/2012.

This funding plan that we're considering here serves as the blue fingerprint for expending the $40 million that we received for incentive projects in the 2011 to 2012 State budget, and we're very grateful to have this funding.

The plan establishes ARB's priorities for the funding cycle, describes the projects we hope to fund, and sets allocations. This is the third cycle for this program that we call AQIP for short. And it's been a very, very positive program so far. It's been used to introduce the next generation of clean vehicles to California's fleet. We regard these investments as a down payment an our long-term goals for air quality and climate change.

Today's proposal builds on the program's past successes and will continue funding for project categories where we're seeing strong consumer demand.

Before I turn to Mr. Goldstene to present the staff report, I do want to say a few words that put this in context a little bit, because Mr. Cackette and I have just been in Washington for the past several days and have been there previously for about most of the week beforehand working along with the Environmental Protection Agency, U.S. Environmental Protection Agency, and the National Highway Transportation Safety Administration as well as members of the Obama administration to try to see if we can put together a comprehensive package of regulations for both greenhouse gases and fuel economy for the period 2017 through 2025.

As everybody on this Board well knows, our standards really were instrumental in moving the administration to adopt national standards back in 2009. And we were all thrilled in May 2009 when we were able to be participants in this one national program that is in effect for the model years through 2016. And it's basically took the California greenhouse gas emission standards and applied them on the national level and also established a cafe standard that will get us to, on paper at least, 35 miles per gallon as an average for the country.

President Obama has announced his goal of doubling that by 2025. There are various ways this number gets expressed or translated in terms of percent improvement per year or percent miles per gallon or whatever.

But the bottom line is here the intent is to have a very ambitious program and one that California would be proud to consider as an alternative to our own program, although we would always retain the right to enforce our own standards. And we do have a slightly different way of doing this.

One important piece of what's different about California and which is recognized not only by the national government but by a number of our fellow states is that we have a mandate for sales of zero emission vehicles. As you all know, we are working hard to revamp that program so that it looks not only at conventional air pollutants but also greenhouse gases and is more clearly integrated into our low emission vehicle standards and our existing Pavley program.

But we have been very, very pleased to be included. We've been participants in all the technical reviews that have been going on at the national level, all the meetings with the auto companies, California has been treated as a full partner with the federal agencies. And we've developed as a result of this very good relationships and frankly a lot of respect for the caliber of the work that's going on on this effort.

As you have probably been reading in the papers and there were a couple of stories in today's paper, we are getting now to the point where the discussions that been going on with the individual car companies are getting to the point where we're hopeful that there will be an agreement and there will be able to be an announcement. And everybody is still very much at the table.

But as often happens in a negotiations -- I think any of you who have ever participated in any business or labor negotiations can relate to this, before you get to an agreement, things appear to be falling apart. And there's lots of stories out there in the presents about how things could be falling apart. And it's still true they could fall apart. The fact is I believe there was -- well, I know there was an add campaign that was planned by the Alliance which represents the larger companies and all the domestic manufacturers. But they were planning to run in the middle west, which was very negative and would definitely have been inflaming public opinion against any kind of increase in fuel economy standards, or that was the intent. Those ads were pulled kind of at the last minute. Some of them aired. They've been letters back and forth coming from the Michigan delegation and threats and counterthreats of all kinds floating around.

So I wanted to -- before we got into this much more meaty part of our meeting -- to just kind of set a little kind of a context here to say that we are still at the table. We are still hopeful. And I guess by nature being Californians we are optimistic because we think the science is on our side. The science is on our side, but also economics is on our side. We can see and we've established that the companies can meet very ambitious standards over the period out to 2025. There's just no question that the technology exists, that it's available, that it can be introduced.

There are costs. And we understand the different companies are in different positions in terms of how they can do. The biggest area of contention at this point really is with the companies that are reliant on trucks, light trucks that are included in this same category of standards as passenger cars. And admittedly, the heavier trucks -- although we're not including any of the real over-the-road trucks that are not included in this category -- but pickup trucks, lighter pickup trucks are included in this category. And those companies that make gasoline pickup trucks are more challenged in terms of how they can meet a really tough standard. They are allowed under these programs to do it with credits. They can trade credits within the company from the lighter to the heavier vehicles or they're allowed to pay penalties under the NTSA program or to trade credits under our program. So there are very -- and they're allowed the bank and borrow. And there's all kinds of provisions for flexibility. And the proposals that we've been looking at are designed to include even more potential areas of flexibility.

But the bottom line is that, you know, we recognize that we need to move forward. And so it's just going to continue -- it's going to continue until it's over I guess is the best way to put it. But the time line that we're on is that the President has committed to put out a proposed rulemaking by the end of September. And we're on the same time track to do that. We plan to do the same thing.

At this point, I would say that we're not only hopeful, but we are reasonably -- how should I say reasonably confident that we will be able to be in coordination with the Administration. We'll do our rulemaking, but we think we'll be able to match up so the federal cars and State cars can be -- both could be allowed in California.

But we're not 100 percent certain of that. And the fact that California does have the ability to set its own standards and that we have done so much, particularly in this area of providing incentives for advanced technology vehicles, is what gives us a seat at the table. I mean, the fact that we are a big market and that all the companies have design centers here is also a part of it. But that's also related to the fact that we, Californians, have really put our money where our mouths are when it comes to trying to create a successful market for the kind of vehicles that everybody knows are going to need to have in the future, but not everybody actually is going to see for quite a long time. We get to actually see some of these wonderful cars out there on the roads in a much faster time frame. And we need that, because we have also bigger emissions problems, bigger air quality problems, are more dependent on gasoline and so forth.

So I just wanted to kind of tie it back to what we're doing here this morning, because, you know, it's not just something that's nice that we get to spend some money to help bring some more advanced vehicles here. It's part of a bigger and really I think internationally important effort that we're engaged in here. And I hope you all feel as proud as I do about the fact that we're able to do this.

Before we actually get into the staff presentation, Tom, if you have anything to add in terms of the talks that we're having right now, I'd appreciate it.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: No. I think that covers it very, very well.

CHAIRPERSON NICHOLS: Well, all right. Okay then. Mr. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

AB 118 was signed into law in 2007 and created AQIP which provides ARB about 30 to $40 million annually through 2015 to invest in clean vehicle and equipment projects to reduce criteria pollutants and air toxics often with concurrent greenhouse gas benefits. 118 expands our portfolio of air quality incentives, providing the opportunity to fund projects not covered under our other incentive programs, such as the Carl Moyer Program, Goods Movement, and Low Emission School Bus Programs. These focus on near-term emission reductions from fully commercialized technologies.

AQIP funds are unique in providing ARB with an ongoing funding source to pay for technology-advancing projects. In the program's first two years, we use these funds to help accelerate the introduction of the advanced motor vehicle technologies just coming to market, such as hybrid trucks and buses and zero emission passengers cars. We're counting on widespread use of these technologies to help meet our post 2020 SIP emission reduction targets and 2050 climate change goals. AQIP investments are an important early step in a fundamental transformation of a California vehicle fleet necessary to meet these goals.

This year's funding plan continues hybrid truck and ZEV incentives, as well as advanced technology demonstration project funding. These projects are working as we envisioned with strong demand and their streamline design makes them easily accessible for consumers. The funding plans also makes it easy for consumers to adjust funding targets if revenues are lower than the amount appropriated in the State budget. This is a situation we experienced unfortunately in the last two funding cycles.

Andy Panson of the Innovative Strategies Branch will present the proposal.

(Thereupon an overhead presentation was presented as follows.)

MR. PANSON: Thank you, Mr. Goldstene.

Good morning, Chairman Nichols and members of the Board.

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MR. PANSON: Today, I will present our proposed funding plan for spending the Air Quality Improvement Program, or AQIP, funds appropriated to ARB in the recently signed State budget. We are pleased with how this incentive program is working through the first two funding cycles and we are excited to build on that momentum as we embark on our third year.

You will see over the course of my presentation that we are recommending continued funding for our largest and most popular project categories with refinements aimed at making our limited funding go further. Otherwise, there are no significant changes from past years.

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MR. PANSON: First for some background. Through the AQIP, ARB receives between 30 and $40 million annually depending on revenues to fund clean vehicle and equipment projects which reduce criteria pollutants and toxics and also provide climate change benefits.

As Mr. Goldstene noted, the AQIP expands ARB's portfolio of air quality incentives and provides the opportunity to fund projects not covered through programs such as the Moyer program or the Goods Movement Bond, which focus on near-term reductions from fully commercialized technologies.

AQIP has a different focus as ARB's only incentive program that allows for the investment in mobile source technology advancing projects critical to meeting California's post-2020 air quality and climate change goals.

AQIP investments today support the deployment of hybrid trucks, zero-emission passenger cars, and other advanced technologies that will help us meet our long-term SIP strategies.

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MR. PANSON: Looking further into the future, reaching the 2050 greenhouse gas emission reduction goal will require a fundamental transformation of the vehicle fleet, with zero emission and hybrid vehicles making up the vast majority of the fleet, as you heard during last month's hydrogen fuel cell showcase.

AQIP investments are an important early step in this transformation. We must start placing these advanced vehicles on our roadways today in order to achieve large-scale reductions in future decades.

Accordingly, we believe the Board-approved guiding principles from our previous two funding plans focusing AQIP on these longer-term goals continue to be appropriate.

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MR. PANSON: AQIP projects provide both immediate emission reductions from the vehicles directly funded but more importantly set the stage for greater reductions in the future associated with large-scale deployment of advanced technologies.

AQIP funds help reduce production costs through increased sales and production volumes, raise consumer awareness and acceptance so cleaner technologies become mainstream choices, and accelerate technology transfer of zero emission and hybrid technologies to new sectors.

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MR. PANSON: With that broad background, I'll now provide an update on the projects we funded through our first two funding cycles. In each of these years, we developed a funding plan based on the approximately $40 million appropriated in the State budget. Unfortunately, as Mr. Goldstene noted, revenues into the AQIP fund have been lower, coming in under $30 million in both years. As a result, we've had to scale back project funding following the contingency provisions that we established in each plan.

We funded five project categories in our first year, the two largest being vouchers for the purchase of hybrid trucks and buses, and rebates for zero emission passenger cars. We envisioned these as multi-year projects. And as such, we continue funding the same categories in the second year with one additional new category, a pilot project for off-road hybrid equipment.

While at different points in implementation, these projects are working as we envisioned and have proven popular. You may have seen recent newspaper articles reporting on the strong demand for ZEV rebates through our Clean Vehicle Rebate Project, or CVRP. Due to its popularity, we ran out of funding a month ago and we have a lot of ZEV customers eagerly awaiting today's Board action.

Our hybrid truck and bus voucher incentive project or HVIP, has also been popular, getting California fleets into hybrid trucks for the first time. This program is acting as a strong catalyst to help the hybrid truck market become self sustaining.

As this slide notes, the California Energy Commission has directed $6 million of its AB 118 funding to these two projects to help us meet consumer demand.

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MR. PANSON: For a little more background on our coordination with the Energy Commission, they receive about $100 million annually under AB 118 for clean fuel and vehicle projects to help meet California's climate change goals.

There's overlap between the vehicle projects that can be funded in each program, so we coordinate closely to make sure our respective investments complement one another.

I already mentioned that the Energy Commission has stepped in to augment our clean vehicle rebate projects. And at last month's hydrogen fuel cell showcase, Commissioner Jim Boyd updated you on the important investments the Commission is making on the fueling infrastructure side. These are critical in ensuring a successful California ZEV roll-out and another example of our partnership on AB 118.

The Energy Commission has also taken the lead on investing in workforce training to support the technologies funded through both our programs.

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MR. PANSON: With that overview, let's move on the our proposed plan for the upcoming year.

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MR. PANSON: I'll start by highlighting our priorities for the year. The AQIP is working as we envisioned, so we plan to continue directing most of this year's funds to our two largest categories: Incentives for the purchase of hybrid trucks and zero emission vehicles.

Both hybrid truck and electric vehicle technologies are at a key points where public incentives can help them become mainstream choices, and there's been strong demand for funding. We also propose to continue an allocation for advanced technology demonstration projects. These are an important part of the program because successful demonstration projects can lead to new deployment opportunities in the future. AQIP is ARB's only ongoing funding source for these types of projects.

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MR. PANSON: This slide shows our proposed funding allocations for these categories, along with the estimated number of vehicles that the funding levels support. Note that the table shows two separate funding targets. The $40 million target on the right reflects the appropriation for AQIP projects in the State budget. However, we are again projecting that revenues will be lower than this full appropriation. We are incorporating contingency provisions to address this revenue uncertainty, and we will most likely be implementing a smaller program.

The $28 million target on the left is a conservative estimate of the total funding we expect based on the revenues we've seen in the last two years. We will initially issue solicitations for this lower funding target, but will include provisions in all of our grant agreements that allow us to scale up grant awards to fund more vehicles if revenues allow.

Next, I'll describe each of these project categories in a bit more detail.

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MR. PANSON: The CVRP is designed to accelerate the widespread commercialization of light-duty zero emission vehicles and plug-in hybrid electric vehicles by providing consumer incentives to partially offset their higher costs. We've partnered with the California Center for Sustainable Energy selected via competitive solicitation in each of the last two funding cycles to implement the CVRP.

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MR. PANSON: ZEVs are the gold standard for ARB's motor vehicle control program and early consumer acceptance stimulated in part by the AQIP is a key to the ultimate success of the ZEV program. This funding helps enable technology-forcing regulations such as the advanced clean car rulemaking, which you will consider later this year. Last month's fuel cell showcase and the recent popularity of the Nissan Leaf show that ZEV technology is here and ready for deployment.

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MR. PANSON: This slide illustrates the growing demand for rebates we've seen since the start of CVRP. The big jump corresponds to the launch of the Nissan Leaf. Prior to that point, we mainly funded small numbers of neighborhood electric vehicles, zero emission motorcycles, and the commercial electric trucks. The truck incentives moved over to the HVIP this past January. This growth will continue as more models come to market.

The CVRP is open to plug in hybrid electric vehicles and we anticipate the plug-in models will be added in the upcoming funding cycle which will further increase demand.

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MR. PANSON: Our main challenge for the new funding cycle is balancing this growing consumer demand with our funding limitations. To address this, we're proposing two changes that would allow us to greatly increase the number of vehicles we could fund.

First, we propose tripling our funding allocation from $5 million last year up to $15 million.

Second, we propose cutting ARB rebate amounts in half. With the new rebate amounts, a full functioning ZEV would qualify for a $2500 ARB rebate. This combines with the $7500 federal tax credit to provide a total consumer incentive of $10,000. We believe this level will still provide a strong motivating incentive for consumers.

These two changes would allow us to fund about six times as many vehicles, or almost 6,000 full-functioning ZEVs. We hope this carries us through most of the next funding cycle, but it is hard to fully project auto makers' vehicle deployment schedules and consumer demand. If demand reaches our optimistic assessments, our rebates would not make it through the full funding cycle.

We also plan to set aside 10 percent of the funds for use by dedicated car share fleets. Car shares offer a unique opportunity to give large numbers of Californians experience drives ZEVs.

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MR. PANSON: Most of the comments we've received on the funding plan relate to the CVRP, so I'll summarize them here rather than at the end of the presentation.

These comments generally support the plan, but some suggest targeted changes to our proposal as you will hear during public testimony. The suggestions are highlighted on this slide. Some have suggested retaining the existing rebate levels either across the board or specifically for car shares. This would mean funding fewer vehicles overall.

Others suggest a set-aside or premium rebates for California-based manufacturers. We believe there are better ways through AB 118 to support California manufacturing, such as the $55 million that the Energy Commission is investing in in-state manufacturing facilities and workforce training. We do not recommend incorporating these changes at this time, as these carve-outs would upset the balance we've tried to achieve between consumer demand and our funding limitations.

One issue we are still working through relates to a recently introduced light-duty zero emission commercial delivery vehicle, currently eligible in the CVRP. The CVRP is generally designed to incentive light-duty passenger cars, while the HVIP handles heavy-duty commercial vehicles. This has worked well to date, however, a light-duty commercial van falls in between those programs. And staff believes shifting this vehicle class from the CVRP to the HVIP would allow for a more appropriate incentive level and more streamlined implementation.

We ask the Board to delegate to the Executive Officer the authority to work through this one last issue and make the appropriate changes.

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MR. PANSON: Looking beyond this year, we will not be able to meet consumer demand at these incentive levels when annual vehicles sales ramp up to the ten of thousands. AQIP is simply not a large enough program. So this will likely be the last year we try to fully match available rebates to consumer demand.

We are, of course, fully committed to supporting ZEV deployment in California, but a more targeted approach or other strategies will likely be required for the CVRP in future years. It is too early to say exactly what these new approaches will be. That will be our main challenge in developing next year's funding plan.

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MR. PANSON: Let's move on to our hybrid truck voucher project, the HVIP. Hybrid trucks and buses are available in multiple sizes and configurations. Over 50 hybrid truck and zero-emission truck models are available from over 13 manufacturers. It's a diverse marketplace, however, the higher cost relative to non-hybrid models has been a deterrent to purchase. The HVIP provides vouchers for California fleets to buy down the cost of hybrid or zero-emission vehicles at the dealership when placing an order.

We've partnered with CalSTART selected via competitive solicitation in each of the last two funding cycles to implement the HVIP. The project's streamlined approach has proven popular with California fleets, vehicle dealers, and manufacturers. The HVIP is working well, so we plan to continue this successful project design with refinements aimed at encouraging broader participation and ensuring that the reduced project funding relative to past years goes further.

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MR. PANSON: Hybrid technology has a high potential to be self-sustaining as it gets more established in the marketplace. So we envision it as a key part of our long-term clean air strategy. And we see advanced hybrid trucks playing an important role in our vision for a more efficient lower emitting freight transportation system.

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MR. PANSON: This slide helps illustrate our vision for HVIP in helping hybrid technology become self-sustaining. Hybrid trucks generally cost between 30 to $70,000 more than non-hybrids, in part because they're still produced in small volumes. By spurring the market in this early stage, our investments will help drive down the cost of future hybrid trucks, accelerating consumer acceptance, and stimulating investments in the next generation of hybrid technology.

When drive train production volumes increase, prices should decline to the point where hybrids are economical without an incentive because their higher fuel economy reduces their pay back period to a more reasonable time, as shown on the right-hand axis of this graph.

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MR. PANSON: We've funded about 900 vehicles to date. The majority are urban delivery trucks with vouchers averaging about $28,000 per vehicle. Electric trucks are also a part of the program, and about 170 of the vouchers have gone to zero-emission trucks.

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MR. PANSON: As I noted a moment ago, we are proposing only modest refinements to the HVIP. We intend to leave the base voucher amounts unchanged, but would provide an extra $10,000 voucher for the first three vehicles a fleet purchases each year to encourage additional California fleets to take advantage of the program.

We also proposing to increase voucher amounts for hybrid school buses to encourage public school districts to participate. To balance these increases and enable us to reach our funding target of 500 new vehicles, we propose a declining voucher scale for larger purchases.

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MR. PANSON: Now on to the advanced technology demonstration projects. We're proposing $2 million in funding for this category, which matches the allocation in each of the past two funding cycles. Our goal is to help accelerate the next generation of advanced emission reduction technologies with a focus on those within three years of commercialization.

We are already have ten projects in progress demonstrating advanced emission controls on locomotives, marine engines, and commercial lawn and garden equipment. We will start seeing results for these projects over the next year and we will evaluate their success to make future funding decisions.

Priorities for the new funding cycle include a school bus demonstration project that was deferred from last year and additional locomotive projects which match the priorities set in ARB's 2009 locomotive technical assessment report.

To complement the HVIP, we are proposing to fund hybrid truck testing through the US Department of Energy's National Renewable Energy Laboratory. This testing will help better characterize duty cycles and emissions for the various vocations where hybrids are most often used.

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MR. PANSON: You may be wondering about the other categories we funded in past years, so let me briefly mention our plans for these before concluding.

Lawn and garden equipment replacement has shifted to the Moyer program, so we are not proposing future AQIP funding.

The agricultural work vehicle project is still ongoing. The funds we've already allocated in previous years are expected to meet demand, so we are not proposing additional funding.

We are just starting our off-road hybrid equipment pilot project, which is intended to encourage the deployment of hybrid construction equipment in California. We just selected a grantee last month, and we used data from this pilot project to evaluate future funding for this type of equipment. If the pilot proves successful, we'd likely be back before you with a proposal for a more comprehensive voucher project in future funding plans.

We see transferring hybrid technology to the off-road sector as a natural revolution for the AQIP.

You may remember that the Legislature directed 2008 AQIP funds to start a loan guarantee program to help truckers impacted by the fleet rules. The loan program is proceeding with financing provided for over a thousand trucks and retrofits. We are adding a new direct loan element this year, and we expect to see an increase in loans over the next few months as the first compliance dates of the rule approach.

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MR. PANSON: To conclude, the proposed funding plan builds on AQIP's successes providing continuing funding sources for existing categories. This funding will help zero-emission and hybrid vehicles proceed to the critical juncture of becoming self-sustaining. These advanced technologies are key to reaching our long-term air quality and climate change goals. It is critical to invest now because of the long time frames needed for significant fleet turnover.

Because we are seeing strong demand and have limited funding, we've had to make difficult choices regarding allocations and incentive levels for each category. We believe our proposal strikes the right balance.

We recommend the Board approve the proposed funding plan with the one minor revision I mentioned earlier and direct staff to start releasing grants solicitations to we can keep this important incentive funding flowing to consumers.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Obviously when there's not much money, there's always going to be difficulties about how to spread it. Clearly, you've come up with a strong rationale for the proposals that you're making.

Before we hear from the audience, I wonder if any of the Board members have any particular questions.

Dee Dee.

BOARD MEMBER D'ADAMO: Not a question as much as want to put something out there for discussion.

Yesterday, I will my staff briefing. And I've always been very supportive of this program, that it sort of dawned on me yesterday that maybe one region of the state is being left behind with respect to participation rates.

And I don't have the staff report, but I believe there's some information contained in the staff report as to where the participation rates are with the whole state.

And sort of what I'd like to do is have staff refer to those rates and honing in on the valley.

MR. PANSON: Yes, I can do that. And actually, there are numbers in the staff report, but the numbers keep changing. The numbers I give you won't quite match the staff report, because we have funded more vehicles since then.

But for the CVRP, the majority of funds have gone to our largest urban areas. About 40 percent of the rebates have gone to the Bay Area, about 30 percent to the South Coast, and about 20 percent in San Diego. And the participation in the valley has been pretty low, at just about two percent of the rebates.

CHAIRPERSON NICHOLS: So that would be ten based on my arithmetic here. They'd be ten percent based on the numbers you just gave.

MR. PANSON: Well, the Bay Area has seen about 40 percent; South Coast about 30 percent; 20 percent in San Diego. And then in the San Joaquin Valley itself, it's been pretty low, at about two percent, with the other 8 percent spread in the Sacramento region and other areas. So it has been very low on the CVRP side.

There are a number of challenges, particularly in getting the ZEVs into the valley.

Let me also just give you the statistics for the HVIP, the heavy-duty truck side of things, because I think things have been a little more balanced in that arena. And we've seen about 50 percent of the truck vouchers go to the South Coast, about just under 30 percent to the Bay Area, about 10 percent to the San Joaquin Valley, and about 10 percent to the other main urban areas, Sacramento and San Diego.

BOARD MEMBER D'ADAMO: So -- and you're absolutely correct. There are a number of challenges with the valley. It's a large area. There's very limited infrastructure. I've always supported public infrastructure with using sort of a cluster approach, because I think it's the best way to service the consumers that have these vehicles so they have a good experience. And if the vehicles are in urban areas and it makes sense to have most of the public infrastructure there, but then it works against what we're trying to do in the valley.

So I know that this program has a number of goals, technology forcing, et cetera. And the Valley isn't necessarily needed for that. But with respect to increasing consumer acceptance and meeting our climate change goals and air quality goals, we do need to deploy these technologies in the valley.

So I just wanted to kind of cue it up. I don't necessarily have an answer with respect to today's allocation. I think staff has worked hard on this, and I don't want to upset the apple cart.

The other thing, too, is that I don't want to start a process like we had with 1B, where we had one region competing against another and it turning into a political debate about how the pie gets sliced up.

But I do think we need to be looking at this. Maybe if staff could be directed when they come back for next year how some program changes could be made with respect to this program or incorporating some of the other programs that exist, figuring out a way to get more of these technologies in the Valley. Because as I'm out and about, we are way behind.

The other thing, I know there's going to be some testify about the Car Share Program. Perhaps targeting something like a Car Share Program in the valley, you know, based on extreme non-attainment or even South Coast.

It looks like South Coast already participates in a very high rate.

That's about the only suggestion I have. But not necessarily making any changes for today, but in general to start the discussion for the next round.

CHAIRPERSON NICHOLS: Well, I appreciate your doing it in that spirit because you're right. It's no fun for any of us to get caught in the middle of a regional fight within the state. And if we can avoid that, I think we'd like to.

But I think your point about looking at this from a perspective of how do we make sure that in total this program is benefiting, the State is really a very smart one. And we should look at it not just in terms of is everybody getting to participate in having plug-in vehicles or any particulate type of vehicle, but how do we make sure we get a balance between pushing the technology and also pushing the things that are going to be the most beneficial for air quality in the short run because there is no question about need there.

BOARD MEMBER D'ADAMO: Right. And the one thing I didn't mention, which of course everybody already knows, the Valley suffers from some pretty challenging demographics: Highest unemployment rates, highest foreclosure rates. So even if we were to somehow target the Valley, we have to deal with that issue as well, which is why I brought up something -- creative programs like ride share or partnerships with public entities. Some way to get those cars out there so that valley residents could experience them maybe in a more limited way without necessarily having ownership.

CHAIRPERSON NICHOLS: Well, thanks for the reminder. And you know, if you're able to devote some thought about how we can best proceed along those lines, that would be also terrific.

MR. PANSON: Can I interject quickly? We do -- we recognize this issue even before we briefed you. And we have taken steps -- we're talking with the air district and we're collectively putting our heads together to look at steps that we can take to try and get more of these vehicles into the valley. They have some local incentives available on the vehicle side. We're looking for ways to make sure it's very easy for consumers to marry those up.

We're also talking about doing more consumer outreach and trying to help them secure funding for consumer outreach. And they're interested in exploring what they can do to provide additional infrastructure funding. So I don't want to understate the difficulty of the challenge, but we are taking steps in that arena.

Another thing that I think is also going to naturally help is that when the plug-in hybrids come to market, they may be a little better suited for the Valley, where, you know, distances are more spread out and that. So I think as when the plug-ins -- as they come to market more fully, that also naturally is going to help. So we hear the concern and we agree with you. And we're trying to take steps to address it.

CHAIRPERSON NICHOLS: Thank you.

Let's go to the public then. We'll begin with Chris Abarca and James Chen and Nicholas Cole.

MR. ABARCA: Thank you. I'm Chris Abarca with Azure Dynamics. We're here to support the staff's recommendation on the revision moving -- potentially moving the forward transit connect electric to the HVIP program out of the CVRP program. We really are focused on the commercial market. We have a commercial cargo van that is able to carry a thousand pounds. Really is well suited for urban delivery. And we really appreciate the staff taking the time to listen to our concern and really acknowledge it. And we just wanted to be here in support of that. And thank you for all of your hard work.

CHAIRPERSON NICHOLS: Thank you.

James Chen.

MR. CHEN: Good morning, Chairperson Nichols and honorable members of the Board. My name is James Chen, and I'm the Director of Policy and Associate General Counsel for Regulatory Affairs for Tesla Motors.

On behalf of the company, I'm pleased to provide this testimony in support of the AB 118 funding plan for fiscal year 2011/2012.

As many of you know, Tesla is a California-based manufacturer of electric vehicles and electric vehicle power trains. As a California company, Tesla is very proud of the catalytic affect it has on the automotive industry in revitalizing interest in the EV technology in the EV market. As a whole, electric vehicle technology has enjoyed a resurgence, with more and more electric vehicle models coming onto the market.

That said, success of this introduction should not be confused with full market success. While we have done well in introducing vehicles to members of the consumer market, such as the innovators and early adopters, we are now facing a critical juncture where we move away from these early purchasers to the early majority, the first signs of a mass market. Incentive programs like CVRP are vitally important to bolstering and supporting this market.

Certainly, Tesla understands the economic challenges facing California, and we support the creative measures put forth by ARB staff with regards to the funding for these budgetary reasons.

That said, we also should not lose focus on the other goal of AB 118. And that is supporting incentivizing the growth of jobs in the clean tech sector. Increasing deployment will directly impact the economy in a positive manner. Accordingly, Tesla recommends modification that would support higher incentives for vehicles produced by California manufacturers. And when we talk about production by California manufacturers, we're referring to vehicles that are substantially or wholly produced in the state of California.

We believe this will recognize the valuable contributions California manufacturers have made in growing jobs in the economy and growth of the economy. Not only will this validate the strategies from manufacturers like Tesla, but will allow us to continue to catalyze the industry, and secondly, support continued job growth in the state. Not only job growth directly by Tesla, but growth by suppliers. With the vast majority of automotive suppliers east of the Mississippi having these incentives validate what we're doing as a California manufacturer will help bolster and support bringing those suppliers into the state. Our written comments provide additional detail, and we thank the Board for the opportunity to provide this input.

CHAIRPERSON NICHOLS: Thank you very much.

BOARD MEMBER SPERLING: Can I ask one question? What are your production plans for 2012?

MR. CHEN: For 2012, we will be producing and introducing our model S, an EV sedan capable of seating five adults and two children. We are ramping up the production volumes of 20,000 vehicles a year. For that first year, we will be producing approximately 5,000 vehicles.

BOARD MEMBER SPERLING: When do you start sales?

MR. CHEN: Sales -- we're taking deposits right now. But as far as delivery, delivery will be in mid 2012.

BOARD MEMBER SPERLING: Thank you.

CHAIRPERSON NICHOLS: Good news. Thank you.

MR. CHEN: Thank you.

CHAIRPERSON NICHOLS: Okay. Nicholas Cole, Matt Sloustcher, and Jamie Hall.

MR. COLE: Good morning. My name is Nick Cole, and I'm the CEO of Car2Go North America.

You should have in front of you a letter of support we've received from the San Diego Delegation to the California Legislature for your review.

I'd like to thank the Air Resources Board for allowing me the opportunity to discuss the benefits of an electric vehicle car sharing programs as it relates to the Clean Vehicles Rebate Program. Car2Go is here today in opposition to the proposed 2011 funding plan with regard to the reduced CVRP rebate amount by 50 percent for all eligible vehicles, regardless of how these vehicles will be used.

It is our position that alternatively fueled car sharing has the unique ability to provide individuals of all income levels access to these vehicles and achieves the stated goals of the program more effectively.

Therefore, we are requesting today that fiscal year 2010/2011 rebate levels be continued for vehicles purchased for use in a car sharing program. It is the intention of Car2Go to launch the most innovative program and environmentally friendly form of car sharing available today. It was our plan to launch North America's very first fully electric car sharing program here in California. When considering various locations worldwide to launch this program, the rebate available through the Air Resources Board played a major role in leading us to chose California.

The unexpected cut will have a considerably negative impact on our business model, which already requires a large up front investment of over $20 million. Car sharing at its core has a positive impact on the communities it serves, by reducing congestion, reducing emissions, complimenting existing public transit by alleviating last mile concerns and is a cost effective alternative to vehicle ownership.

Car2Go's electric vehicle car sharing model further enhances the core benefits of car sharing by making electric vehicles accessible to target users that cannot be directly reached through rebate programs and tax incentives because they cannot afford to buy an electric vehicle by addressing consumer range anxiety through the use of the vehicles and of course increasing the electric vehicle visibility and adoption through firsthand experience of the technology with 300 electric vehicles shared by thousands of individuals.

In conclusion, today, we would like to ask the Air Resources Board to recognize the efforts taken to encourage and accelerate zero emission vehicle deployment and technology, as well as increasing electric vehicle visibility and adoption in the state of California by supporting the efforts of car sharing programs.

In light of the extraordinary initial investment needed to make the electric vehicles available to all residents of a community and the direct benefits of such a program as it relates to the established goals of the CVRP, we respectfully ask that the current levels of funding be maintained for car sharing programs in the upcoming fiscal year.

CHAIRPERSON NICHOLS: Thank you.

I'm going to ask some questions about that, but at the end after we've heard from everybody. Appreciate your comments.

Matt Sloustcher and then Jaime Hall and John Clements.

MR. SLOUSTCHER: Thank you, Chairman Nichols and members of the Board.

I'm Matt Sloustcher, the Government Relations Manager at CODA Automotive. I'm here primarily to voice my support for both the AQIP and the Clean Vehicle Rebate Project with some slight modifications I'd like to recommend. I'll start with just a bit of background.

CODA was founded three years ago. The idea was relatively simple: To build a mass-market, long-range relatively affordable electric vehicle. It's been a long journey for the company, but I'm excited to report that we're nearing the finish line and expect to have our first vehicles on the road by the end of the year.

Along this journey over the past two years, we've more than quadrupled our head count in California. By the end of 2012, we expect to double our head count again.

We recently just secured a new headquarter facility in the city of Los Angeles that will help us to grow to about of 600 in the city of L.A. We also are building sales center across the state and are supporting jobs -- indirect jobs through supplier relationships with engineering partners.

As mentioned previously, there are many other companies in California who are on similar growth trajectories.

My point is that with the global clean vehicle movement underway, California stands a lot to gain both today and in the future by cultivating this industry. In addition to jobs, these companies are also sending tax revenue to Sacramento.

The Clean Vehicle Rebate Project has no doubt been effective at accelerating the adoption of electric vehicles and other ZEVs in the state. But the Air Board has an opportunity to make the program more effective to provide co-benefits, to make it a more effective job creator. And the way to do this, as mentioned previously, is to create a set aside or to offer a premium rebate for the purchase of vehicles from California suppliers.

I would just add that this is supported both by AB 118 itself and in California precedent with other programs like the self-generation incentive program that have these sorts of preferences.

To close, I'd like to thank Chairman Nichols and members of the Board and staff for your diligent efforts on the program. We think it's been very effective and very important for cultivating industry. Thank you.

CHAIRPERSON NICHOLS: Thank you.

BOARD MEMBER SPERLING: Chairman, could I ask a question?

CHAIRPERSON NICHOLS: Yeah.

BOARD MEMBER SPERLING: We're going to talk about this some more, I presume. But just as a factual thing, I mean, most of us are very strongly supportive of CODA and companies -- EV companies in California. But what percent of the content of a CODA car is California?

MR. SLOUSTCHER: I don't have specific numbers for California. In terms of --

BOARD MEMBER SPERLING: For U.S.

MR. SLOUSTCHER: It's 30 to 40 percent I believe.

BOARD MEMBER SPERLING: For U.S.?

MR. SLOUSTCHER: Correct. And the cars will be final assembled in California.

BOARD MEMBER SPERLING: They're Chinese batteries?

MR. SLOUSTCHER: Correct.

CHAIRPERSON NICHOLS: Thank you.

Jaime Hall from Calstart and John Clements and

Mark Geller.

MR. HALL: Good morning, Chairman Nichols and members of the Board.

My name is Jaime Hall. I'm Policy Director for Calstart.

I want to speak in favor of the AQIP plan overall as proposed by staff. And I want to talk on HVIP in particular, the hybrid truck and bus voucher incentive project.

This program is really exactly what fleets and manufacturers need in order to move the industry forward and to get these vehicles on the road. It's streamlined and simple, making it unlike many government programs. It reduces costs right at the point of purchase, which is a lot easier than the tax credit or something like that where companies need to put up money up front and sort of get repaid later.

And the Board and staff have signaled a multi-year commitment to this. It's a stable program and provides long-term signals the industry needs in order to keep moving ahead in this area.

It's been very successful so far. The first year sold out in record time. This is because of a lot of pent-up demand. All the money went out quickly, and we got 100 trucks on the road in a matter of months.

It was responsible for more than a third of the national sales last year of hybrid trucks, which really means this program is driving the market nationwide. It won an award from ACEEE as a really innovative and effective program for energy efficiency. We conducted a study funded by the Energy Foundation that identified it as one of the best incentive structures and something that people would really like to see copied elsewhere in other states and around the county.

We're starting to see interest in that. New York is looking at maybe doing something along these lines and we know some federal agencies have been speaking with staff about how they could do something like this at the federal level. This is exactly what industry would like to see, what we would like to see, and it's really evidence of the fact this is a good program.

It will continue to be important in the future. The pace has slowed down a bit from last year because there's not so much pent-up demand anymore, but we've been polling companies and see strong and steady demand for purchases throughout the next year or two. We are talking to large fleets who are planning significant purchases in the future. We're working with municipalities and next level fleets in trying to get these things beyond the early adopters.

And it's important to know there are no federal incentives for this sector. HVIP is really the only game in town. This is what's getting hybrid trucks on the road. It's the most important program out there for really advanced, medium, and heavy-duty vehicles.

We've been a key AB 118 supporter. We definitely agree CARB has got a difficult job given budget constraints and sort of all the demands to pull money in different directions. We think you've struck the right balance. It's a difficult job. We think these innovative programs are really setting a clear market signal. And we encourage you to keep the HVIP program around and think you've done a great job making difficult choices here.

CHAIRPERSON NICHOLS: Thank you.

MR. HALL: I beat the buzzer.

CHAIRPERSON NICHOLS: You did. Okay.

John Clements and then Mark Geller and Jay Friedland.

MR. CLEMENTS: Good morning, Madam Chair and members of the Board. Thanks for the opportunity to share today.

I'm an end user. I'm John Clements, Kings Canyon Unified School District Transportation Director. I am from the Central Valley.

And I'm here to tell you that this year we're going to use HVIP funds in combination with lower emission school bus funds, in combination with AB 939 funds, in combination with our Measure C Fresno County Transportation Authority road tax dollars to fully fund two charge sustainable hybrid electric -- oh, I forgot. And because I participated with Joe Calivita and Lucina's working group for HVIP and there was a connection made, I got a call from a lady over at Sac AQMD by the name of Fria Eric that says, by the way, I have some hybrid moneys that I need help spending. And so those two buses that I will receive before Christmas will be fully funded, thanks to the connections I've made here in this building.

Now, that's the first two. But we're going to go with three more that we received about 635,000 through CMAC in partnership with our local Fresno County Council of Governments and Caltrans and Federal Highway Administration that provides those dollars. But we've come up a little short. And so those are going to be delivered in 2012. Through the incentives that are available for school bus in 2012, those three buses I'm going to obtain, two more charge sustaining models and we're going to go ahead and step out even though the plug-in model through our manufacturer has not been approved yet at this building because the manufacturer hasn't gone through the approval process, we're going to seek a plug-in charge depleting hybrid electric school bus as our fifth one.

And I believe that when it's all said and done, we'll probably have to come up with about 12- to 13,000 of our own dollars, which is a small price to pay for well over in excess of a million, million-and-a-half in school buses.

CHAIRPERSON NICHOLS: That's a fabulous story.

MR. CLEMENTS: So thanks for those dollars. Keep the dollars coming.

Our local paper did misquote Calstart, and I believe the electronic version is correct. It said there weren't any more dollars left for HVIP this year. We know that's not correct. I'm counting on those dollars. I have a copy for you. And I have a copy for our Valley Board person that I'd like to leave with staff.

Also inside there are two pictures. One is of an all-electric truck. We love Kings Canyon Unified and our Central Valley Transportation Center, of which we are a JPA member with our local city and our local community college. We love to demonstrate this for food service delivery throughout our local school district region, and one of these, which is an all-electric school bus yet to come. Thank you.

CHAIRPERSON NICHOLS: Well, I'm thrilled to hear that you've been able to piece all these different bits of money together. It's an awesome task to just ferret out all those funds.

MR. CLEMENTS: I can stand here and tell you more. We're going to get seven diesel school buses with a number of other funds, including your lower emission school bus funds. So next year, we're going to get twelve new school buses, you know. And of course, we still have 17 that we need to get rid of to meet that 2018 deadline. We're plugging away. And thank you for those funds. Keep them coming.

CHAIRPERSON NICHOLS: I'm sure the kids who breathe cleaner air in those buses are also --

MR. CLEMENTS: I'm excited. We hope to plug that one hybrid into solar-covered carports during the day.

CHAIRPERSON NICHOLS: Great. Thank you.

Mark Geller.

MR. GELLER: Hello. Mark Geller from Plug-In America.

I'm very pleased to be here to support the staff recommendation on CRVP, the use of the 118 funds. It's very clear that commercialization of zero emission vehicles, particularly passenger vehicles, is going to be critical to achieving the goals the State has set out. Consumers are the linchpin. Thousands of cars are now --

plug-in cars are now being delivered to consumers in California.

We support the lowering of the rebate level in order to reach more consumers in order to enable more folks to get vehicles. It's not a surprise to Plug-In America that plug-in cars have the kind of demand we're seeing in the marketplace.

It's clear from the presentation earlier that the demand this past funding year outstripped the supply of vehicles. And it is close to anticipated that that will be the case again next year.

We hope that the Board through 118 funding and other measures finds ways to continue to support consumers' attempts to get plug-in vehicles in California.

The benefit of plug-in vehicles in terms of air quality and petroleum reduction is perhaps unsurpassed by any other effort of this Board. And we hope they will continue. You will continue to make all the efforts to make sure consumers are able to get plug-in vehicles in California with the support of the State and the federal government.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

Jay Friedland, followed by Mel Assagai and Michael Bennett.

MR. FRIEDLAND: Good morning, Chairman Nichols and Board of the members. I'm actually here in a slightly different role than usual. My colleague, Mark Geller, spoke for Plug-In America. I'm here speaking on behalf of Zero Motorcycles, which I'm the BPA of strategy and sustainability.

I really want to take an opportunity to thank the Board and the staff for all the hard work they've done on the Clean Vehicle Rebate Program. It's a really outstanding and successful program.

For a small company like Zero, the consumer incentives help both consumers and manufacturers. And I think that's one of the things that we really want to get across in that it's very highly leveraged. The consumers that benefit and the manufacturers benefit.

The Zero sales team estimates there was probably between a 30 to 50 percent increase in sales in California based on the fact that the rebate was available for our zero emission motorcycle. And to give you a feeling, it's a $10,000 motorcycle. There is a $1,000 federal tax credit, and there was the $1500. So put it at 7500, which was very significant from a consumer standpoint.

At several of the other manufacturers have mentioned, one of the key goals written into AB 118 was to encourage California manufacturing of EVs and have EV components and really to enhance the California's green economy and green jobs in California. So Zero is joining together today with Tesla and CODA and Vantage and other California manufacturers to request your consideration of the proposal, which has two components to it. One is an enhanced rebate level for California manufacturers. And secondly, set-asides similar to the car share set-aside for plug-ins that are manufactured in California.

To give you a feeling, Zero has grown from five employees in 2008 to now 60 employees today. This is in California. Last year, we moved our manufacturing. We originally started out manufacturing in Asia, and we moved our manufacturing back to the U.S., back to Scotts Valley and Santa Cruz. And we want to grow this further.

To answer Dr. Sperling's question in advance, we have over 50 percent U.S. content and have qualified for export funding under the U.S. export/inport bank as well. So we really would like to look at the original goals of AB 118 and the envisioned ideas and look at preferences that will further help the California economy and manufacturers in that space.

CHAIRPERSON NICHOLS: Thanks.

Mel Assagai followed by Michael Bennett and then bone Bonnie Holmes-Gen.

MR. ASSAGAI: Good morning, Madam Chair and members. How are you this morning?

I'm Mel Assagai for Navistar. As you know, Navistar has been partners with the Air Resources Board in the climate change efforts from the very start. We manufacture hybrid electric school bus. We manufacture hybrid trucks. Even have an all-electric vehicle that's for sale in California, all ARB certified.

We want to thank the staff for this excellent recommendation. We know this is a very challenging fiscal time and there are hard choices to be made. We're glad the Board is sticking with its commitment to the AQIP and the HVIP. We think the HVIP is a very sensible program. The voucher program is a very superior way of getting these vehicles to market.

We want you to stay the course and understand that the last year or so won't be typical of what's going on in the future. We expect demand for these vehicles to increase. We're planning on it and we hope that we can continue to support you in your efforts. Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

Mr. Bennett.

BOARD MEMBER SPERLING: Could I ask a question?

CHAIRPERSON NICHOLS: Sorry.

BOARD MEMBER SPERLING: So this is wonderful that

Navistar has been interested in hybrid vehicles. Can you give us a better -- given that Navistar is one of the largest truck manufacturers, can you give us a sense of how important or what hybrid vehicles are, some sense of -- I guess my real question is: How much impact is our program really having in terms of simulating investment on your part?

MR. ASSAGAI: Your programming really is at the heart of innovation in this area. We recognize that California leads the way in this area. So a lot of the innovation that we've engaged in over the years has been driven by the ARB's priorities and what it set out in terms of incentivizing these things. It really is maybe the most important element in driving innovation at Navistar. We look at California as a proving ground, as a starting place, and someplace we expect the market to grow. It's very, very important. And that's why we're here to support the program today.

BOARD MEMBER SPERLING: Thank you.

MR. ASSAGAI: You're very welcome.

CHAIRPERSON NICHOLS: Thank you very much. I understand that Mr. Bennett did not attend today. I guess he signed up online and then decided not to. So Bonnie Holmes-Gen.

MS. HOLMES-GEN: Good morning, Chair Nichols and

Board members. Bonnie Holmes-Gen with the American Lung Association of California.

And I wanted to tell you again that the American Lung Association of California strongly supports the AB 118 program and believes this funding, ARB AQIP together with the 188 funding is an extremely important component of California's efforts to jump start the market for the cleanest and lowest carbon transportation technologies.

And we're very pleased with the growing list of accomplishments of this program. And I've been really pleased to be participating with the CEC 118 Money Advisory Committee also and seeing both sides of this. We hope that you can find more ways to publicize the accomplishments and get the word out there.

I did want to highlight that we agree with the point raised by Board Member D'Adamo and discussing earlier and just comment that the history of this particular pot of funding has been both to promote advanced technology and to assist the air districts with their attainment challenges, especially in these tough areas. This funding can greatly assist in meeting federal air quality standards.

And we certainly would support more focus and discussion on how we can get more dollars and assistance from this program and some of the worst polluted areas, of course, the San Joaquin Valley and looking for ways that we can increase consumer experience with zero emission vehicles in the valley is very important.

But overall, we're here to support the staff proposal. We appreciate the hard work of the staff in devising ways to more efficiently spend these funds. We're excited to see the growth and interest for the ZEV consumer rebates or ZEV consumer incentives. And we think this is exciting and really just incredibly important to California's zero emission vehicle program.

So thank you and keep moving forward.

CHAIRPERSON NICHOLS: Thank you. And thanks for all your support in this obtaining this fund in the first place. So we appreciate that very much.

That is the last of witnesses who had signed up to speak. So it's now time for some discussion.

I guess I have a couple of questions and other Board members may, too. But there were two distinct points that I heard that I think the staff should address in a little bit more detail. The first was the issue about whether there should be either a set-aside or some form of special incentive for people who purchase electric vehicles for car sharing programs versus for an individual consumer. Obviously, a sharing program can reach a larger number of people, larger number of households. And I'm aware of the fact that these are increasingly popular programs on college campuses and they tend to appeal to younger consumers who at least generally are also less affluent. So I'm curious if there's been any thought about how to add any additional incentive there.

MR. PANSON: Well, we do recognize the value of car share programs and we're trying to encourage them. I think that's the whole genesis for us to take this step and make the proposal to set aside ten percent of the funds to ensure there is participation by car share fleets.

We think that that -- we run through the analysis and we believe that's the appropriate level of support in this kind of challenging time.

As you've heard, we're up against a numbers game. We have a limited amount of money. If we provide more per vehicle incentives, it means fewer vehicles funded overall. We're going to really struggle to meet demand through the course of the year. If we do premium rebates and bump ups, it means we are going to fall even further short. We're in a tough and challenging situation.

CHAIRPERSON NICHOLS: A set-aside is a value and especially if it's communicated to those who are interested. That certainly is a valuable thing.

I guess somewhat related though -- it's not exactly the same point. It wasn't brought up here. With respect to people who purchased vehicles when there wasn't any incentive money available, how are you planning on dealing with those?

MR. PANSON: We actually anticipated that and included provisions in the plan that you approved last year. And we have a waiting list. And we've publicized that so we're still taking people on the waiting list. I think there's about 500 consumers on the waiting list.

But in setting up the waiting list, there is a couple caveats that go with it. One, it's subject to the Board approving and the Legislature making money available. And two, we were going to -- the rebate levels were going to be at the level that's approved for the upcoming year.

CHAIRPERSON NICHOLS: The new going forward level.

MR. PANSON: We're very clear about that on the website. So those on the waiting list will get a rebate. But if the Board approves our proposal, it's going to be a $2500 instead of a $5,000 rebate.

Again, it's a matter of trying to stretch our dollars as far as possible. And we were very clear and transparent and up front to our consumers that when they went on that waiting list they would be eligible for whatever the new incentive level was. At the time that we started taking people on the waiting list, we had workshops. Our proposed was very well flushed out. I think people knew it was going to be $2500.

CHAIRPERSON NICHOLS: Okay. And then I probably somewhat more significant in big policy sense at least is the issue about what kind of recognition should be given to people who do manufacture within the state of California. I'm sure you've given thought to this before. I'd like to hear a little bit more about your rationale and also question in terms of the timing of these funds because of the fact that both of the firms that appear today that are manufacturing in California of cars -- well, actually, all of them are California firms. But they're all talking about the future. The cars aren't here right now. So even if they're taking orders, they're still not in a position to actually take advantage of those incentive funds as I understand it.

So as Ms. Berg was suggesting to me a little bit earlier today, we might want to do something just in terms of reserving funds so hypothetically we don't use up all the incentive funds at the beginning of year before people who are here making them can make advantage of them.

Anyway, could you address that issue?

MR. PANSON: Yeah. It's definitely a challenging issue. And AB 118 does and is actively supporting in-state manufacturing. And AB 118 is more than just our program. And I want to make sure we don't lose sight of the fact that the Energy Commission is investing $55 million in in-state manufacturing plants and workforce training to better train the California job force. So that is --

CHAIRPERSON NICHOLS: This is specifically tied to advanced vehicles?

MR. PANSON: Yes. It's part of their -- it's through AB 118. So on the manufacturing, it's for design and production capacity for advanced vehicles, electric and hybrid vehicles, batteries, vehicle components. So this isn't part of a larger pot that's going to all kinds of different industries. This is for the vehicle industry and the workforce training. By the same token, it's very much intended to marry up with the technologies that we're funding. So --

CHAIRPERSON NICHOLS: So it's important to recognize this isn't the only pot of funding out there that's available.

MR. PANSON: Yes.

And by doing the issue with the premium rebates for California companies, again, it's the same issue that we're talking about relative to car shares that is -- if we give more higher rebate levels per vehicle, we're going to fund fewer vehicles overall.

CHAIRPERSON NICHOLS: What about the issue of setting aside some of the funding or at least not paying it all out at the beginning?

MR. PANSON: That also presents some challenges because what we're going to do is turn away some consumers saying you're ready to buy a vehicle today and we're not going to -- we've run out of money. If we are doing a set-aside, we're taking it away from the general pot. So we potentially will be telling consumers who are ready to make a purchasing decision today or some months from now that they can't take advantage, because we're holding money aside for vehicles that actually are in active production right now. That's presents a challenge.

CHAIRPERSON NICHOLS: Any other thoughts or questions?

Yes, Dr. Sperling.

BOARD MEMBER SPERLING: I have a lot of questions, you know, along the same lines. I guess I don't fully understand how these are being set up. You know, for instance, the car share. So I guess I'm not even clear what's in the resolution.

CHAIRPERSON NICHOLS: How it works.

BOARD MEMBER SPERLING: How all this works. I was testing out zero emission bicycles in France until yesterday. So I didn't get a chance to catch up here.

CHAIRPERSON NICHOLS: Our hearts go out to you.

BOARD MEMBER SPERLING: So I request a little sympathy here and patience.

So with the car share, for instance, if there is a ten percent -- so I guess you're proposing -- it's in the recommendation for the ten percent for car share. So they get ten percent carve-out. And that means that ten percent is set aside for the entire -- it's there for the entire year, unless it's not used but then -- and it's the same amount. It's the same $2500 per car amount?

MR. PANSON: Yes.

BOARD MEMBER SPERLING: And so if it's not used at the end of the year --

MR. PANSON: If it's not used, it would flow back into the general -- it's available for any consumer to take advantage of. It will be spent on ZEV rebates. It won't go back into the more general AQIP pot. It's going to stay in the CVRP to incentivize consumer light-duty ZEV rebates, but the car shares will have the first go at the money.

BOARD MEMBER SPERLING: Since these are business -- I know I definitely -- I've been a champion of car sharing since the beginning. And so I'm very supportive.

But in terms of making this work for -- if it's a company that comes in, what happens if they fold up shop six months later?

MR. PANSON: Yeah. That's actually a good question.

Anyone who takes advantage of our rebate funding is committing to keep a vehicle in California for three years. When they sign on the dotted line to get our money, they're making that commitment and agreeing to -- if they don't stay in California for the full three years, they have to either, if they re-sell the vehicle, pass on the pro-rated amount of the rebate to whoever is purchasing the vehicle or return the money to the program.

BOARD MEMBER SPERLING: And one more thing on the car sharing part. Are there any other companies that have indicated interest in this program other than Mercedes?

MR. PANSON: Yes. There are a number of rental car agencies are kind of exploring and in the process of setting up car share elements to that business and have come and talked to us expressed interest, expressed support for the set-aside. So Car2Go, the people who testified today, have kind of been the most active or the most out in front. But there are other entities that are interested in looking forward to and hoping to take advantage of this funding.

BOARD MEMBER SPERLING: I could have some more questions, but I think you were -- so another question is this $2500, why not make it a thousand? Is there any logic or rationale behind these numbers?

MR. PANSON: Yes.

CHAIRPERSON NICHOLS: It's not arbitrary and capricious. Let me tell you that. It's based on a strong --

BOARD MEMBER SPERLING: Lots of research.

CHAIRPERSON NICHOLS: Yes.

MR. PANSON: You know, eventually we're going to continue to either reduce rebate levels or as I said next year we're going to have to do something more targeted. We've been funding 5,000 -- there's $5,000 had been the target -- had been the number that's been out there for a number of years. We realize we're not only seeing more demand, we knew that we could lower the number. And we really just want to take a stair-step approach.

I can tell you when we proposed at our April round of workshops $2500, we actually got a fair amount of push-back on that that they were going too far, too fast. At the time we were doing that, there was still several million dollars left in our pot. And I think the comments that we're going too far, too fast, maybe had a little more relevance at that time. Since that time, we've seen an upsurge in demand, and we think we've hit the right number.

BOARD MEMBER SPERLING: So the expectation is we'll probably go down to a lower number next year.

MR. PANSON: Next year, the CVRP is likely going to look very different, because we definitely will not be able to meet this paradigm of everyone gets a rebate. We'd likely have to go down to a number that's so low that it doesn't serve as a motivating incentive anymore. And what's the point of giving an incentive that doesn't actually incent.

So, yes, you know, it's going to look very different next year as soon as we catch our breath and finish this year's funding plan and get this list out and get funding out, we're going to immediately start thinking about how we are going to revamp and redesign or move this program forward. So it's going to be different next year. But that's just a preview of coming attractions.

BOARD MEMBER SPERLING: Okay. And the amount -- following up on Chairman Nichols' question, these people that are on the wait list, I guess I didn't understand what that means. Is that because there is a lot of -- by the end of this year, there's going to be an awful lot of them on it. It seems like that will use up all of the money from next year before we even get to next year. Am I misunderstanding?

MR. PANSON: By next year, you mean the money you're approving right now?

BOARD MEMBER SPERLING: Yeah.

MR. PANSON: We actually -- we realize -- we want to take care of people on the wait list as quickly as possible. Normally, the way we've been running this program is we -- the Board adopts the plan. We then develop and issue solicitations and make new funding available kind of around the first of next year. We realize that would be untenable given the fact we've run out of money. So we actually have a solicitation fully ready to go pending Board approval. And we hope to release it as early as next week. It will be out for 30 days. And we hope to turn it around and sign a new grant agreement to get the money back out to consumers as early as hopefully mid September.

We're going to start to satisfy the waiting list hopefully 45 days to 60 days from now. Right now, there's 500 consumers on that waiting list. So it is going to take up some of this year's funding. But we hope to have the funding flowing before the waiting list gets too much higher.

BOARD MEMBER SPERLING: So you're saying you're not allowing anyone else on the waiting list?

MR. PANSON: No. We continue to allow people. We hope to have the money actively flowing in 45 to 60 days from now. There won't be a waiting list after that. The money is going to go -- the program is going to be live.

CHAIRPERSON NICHOLS: Back in real time.

Yes, DeeDee.

BOARD MEMBER D'ADAMO: I'd like to chat a bit about this issue of the sweet spot and what it takes for the Car Share Program. I don't know what that amount is, but I guess, you know, of course, Car2Go is interested in higher amount. Anybody would be.

But I'd like to hear your thoughts about at what point is it not enough of an incentive such that it wouldn't make a business case and it wouldn't end up implementing the program. I don't know if you spent much time with Car2Go and exactly what it would take. I think there needs to be some way to include in the analysis that we're getting more from those cars than we would a car that is in the hands of the consumer.

Do you have any information about how many people would cycle through a car share program?

And of course the other thing, too, is the big splash that can't quite put a price tag on that. But the big splash that a car share program would have as opposed to an individual consumer or even at a rental agency where maybe they have a few electric cars as opposed to a whole program where there is a marketing scheme that goes with it.

MR. PANSON: You know, we believe the program is still going to go forward even at this incentive level. Perhaps, you're -- some of the questions you're asking me are questions that I think the car share entities should answer. And I'm not going to try to answer for them.

But you know, we think we're at the right funding level. And again if we provide higher rebates -- levels for these, it means other people aren't getting taken care of. So it's a hard trade-off to make.

BOARD MEMBER D'ADAMO: Maybe we should pull them up here. I'd like to know and also --

BOARD MEMBER RIORDAN: I will -- if the gentleman would like to come forward to respond to her very specific question. I don't think we want to reopen a lot of testimony.

BOARD MEMBER D'ADAMO: My co-counsel here is nudging me for more questions. What I was going to say also do you have information on how much individuals cycle through those cars over a year or some period of time?

MR. COLE: I'll use Austin was our first launch in North America. Those are combustion engines obviously. We have 15,000 members in Austin. We see generally during the course of a seven-day calendar week 4,000 rentals. So each car is being utilized several times a day, if not more.

And our membership, like I said, it is 15,000 people. And I would tell you based on the folks that -- we're just starting to do our internal studies on who's using the car. But I would imagine based on who we know are using the cars in Austin, for instance, they probably wouldn't be in the market or able to purchase an EV like this project would bring to the city.

BOARD MEMBER D'ADAMO: A question about the business model on the 25 versus.

MR. COLE: The business model --

BOARD MEMBER D'ADAMO: At what point do you have to walk away from it?

MR. COLE: It's a consideration, to be honest with you. It's a significant investment, as I said. We're looking at over $20 million to launch this program in California. And so we did, we took the CVRP into consideration. We built the business model. And of course, the federal tax incentives as well.

BOARD MEMBER D'ADAMO: Just a follow-up for staff.

Were car share programs and rental car agencies treated the same with respect to that ten percent?

MR. PANSON: The ten percent is only for dedicated car share fleets. Some rental car agencies are interested in considering setting up car share programs. So if a rental car agency sets up a car share fleet, a car share program, yes, they would be eligible for the set-aside. It's not a set-aside for rental car -- just the normal rental car business model.

I guess one other point I also want to make is that our incentive is part of the package that the car share entities are going to be able to take advantage of. I believe they're also eligible for the federal tax credit, meaning they're getting the $7500 per year that's coming to San Diego. And the reason they're coming to San Diego is because of the tremendous infrastructure investment that's been made in that region.

So, you know, our rebate in and of itself is not the only thing that's drawing this car share program to San Diego. So it's important to acknowledge that there's other things that are feeding into this.

BOARD MEMBER D'ADAMO: The other question that I have is that -- and I don't know enough about the car share program and when it's planning on deploying the cars. But if time runs out, I think that there should be the discretion to allow those funds to be used for the car share program if they're not used by the end of the calendar year, rather than it going back into the general pot. Do you have that discretion?

MR. PANSON: Yes. That level of sort of implementation detail we -- the specific dates and that, we establish in our implementation manuals for these programs. If you want to give us some guidance or direction on exactly how long we should leave the money available for the car share fleets, we welcome that.

CHAIRPERSON NICHOLS: Supervisor Roberts.

BOARD MEMBER ROBERTS: I wanted to ask a couple questions. I want to go back to some basic math and maybe it will help us a little bit. We've got ten percent of which number?

MR. PANSON: It's ten percent of the $15 million that we're proposing for the CVRP. It's about $1.5 million set-aside.

BOARD MEMBER ROBERTS: So 1.5 help me. How many cars is that going to be?

MR. PANSON: We can funds about 700 vehicles.

BOARD MEMBER ROBERTS: Seven-hundred. Put into perspective, how many of these programs we have around the state, that's a lot of cars. So it seems like there's going to be adequate funding in here.

Do we have -- have you had contacts with enough people to feel comfortable that we're going to go through anywhere close to that in terms of new businesses?

MR. PANSON: You know, the other entities we've talked to -- you know, the number of vehicles that they're interested in would approach the full funding that we're talking about when you look at Car2Go as well as the other entities we're talking about. We think the demand could be potentially in that 700 vehicle range.

BOARD MEMBER ROBERTS: That's really the questions I was trying to get at. If we're matching the program to the likely demand or if we are setting something up and we're going to have a bunch of money left over and we going to try to figure out what to do with it.

MR. PANSON: And the reason why we have the provision for the money to flow back into the CVRP general pot of money is that we're trying to meet multiple goals here. We're trying to meet the funding target of 5600 full-functioning ZEVs is what we could fund with the $15 million allocation. So we'd like to see some fraction of them up to 700 be in car share applications.

But if there wasn't a full demand for funding for car shares, that money would go back into the general CVRP pot, which would get us to our 5600 vehicle target. So I think I see maybe the math that you're thinking about. If we didn't think we're going to use all $1.5 million, we could bump up the per-vehicle rebate amount to satisfy the 300 vehicles that they're talking about here.

By doing that, we're going to not meet our 5600 vehicle target. We're already telling you we think we're not going to make it through the full funding year. So when we do set-asides and we may choose to want to do a bump up, but it means we're not -- going to end up further behind in trying to meet the consumer demand.

BOARD MEMBER ROBERTS: Help me with the math 1.5 million divided by 2.5?

MR. PANSON: Yeah.

BOARD MEMBER ROBERTS: You're getting 700?

MR. PANSON: Yeah. There's some administrative costs. So, you know, when we say 700, it reflects the fact there is some administrative overhead.

BOARD MEMBER ROBERTS: Help me to understand also what is the difference between what makes something car sharing as opposed to car rental all or whatever your other category is? You've talked about it and we've thrown it around. It's not clear to me what the distinction is.

BRANCH CHIEF BEVAN: Analisa Bevan with the Sustainable Transportation Technology Branch.

We've defined car sharing programs within the

Zero Emission Vehicle Program to have intelligence reservation systems to use shared use subscription services. It is a more technologically advanced system than a rental car program. It's not intended for incidental use, but more regular use. And also often is linked to transit. And we actually have provisions within the zero emission vehicle regulation which provide additional zero emission vehicle credit for such applications for zero emission vehicles.

And I actually wanted to add that to this discussion that ZEVs and plug-in hybrids which fall under the zero emission vehicle regulation and are used in shared car applications can earn as much as three times more ZEV credit than they would if they were purchased or used by a consumer. So that's an additional significant incentive to put cars into car share applications.

BOARD MEMBER ROBERTS: I'm trying to understand the business distinction between what we're setting -- I mean, what would Hertz have to do to get into this business?

BRANCH CHIEF BEVAN: They can get into the business. There is a distinction between business where they have a subscription contract with the user who always comes back to that car and may use an online or smart phone application to reserve that car or those kinds of cars on a regular basis versus the incidental user who walks into the rental agency and chooses to rental that car or any other technology of car. If they've got a subscription service and an intelligent reservation system, then it's a shared car application.

CHAIRPERSON NICHOLS: The people seem to use them quite differently.

BRANCH CHIEF BEVAN: Yes. And the rental car agencies are an entity that want to get into this business with a subscription and intelligence reservation system in addition to their application of the technologies in a more incidental situation.

BOARD MEMBER ROBERTS: It sounds like you're confident by the end of this period that all of these rebates in effect will be requested and used as part of the ride sharing program.

MR. PANSON: Yeah. We have interest, but you know.

BOARD MEMBER ROBERTS: It sounds like weakly optimistic maybe.

MR. PANSON: More than weakly optimistic, but less than fully optimistic. I'm sorry.

BOARD MEMBER ROBERTS: That's the ultimate answer.

BOARD MEMBER RIORDAN: But we don't have

knowledge of their business plans. We don't have knowledge of their capital. And so you're hoping they're successful. But you know, like any new venture, there's no way in the world to know if these people are going to come forward and actually make the purchase.

My feeling is as long as we have an alternative where we can take whatever is in that pot leftover and somebody's business plan doesn't work out and we can redistribute it to people who are buying an electric vehicle, well, I'm comfortable with it. But I don't know whether these people ever make it in the world. I hope they do. But I don't know.

And one thing we ought to do -- and it could give somebody an excellent little project at some university -- is to follow this evolution of use of transportation and see what we're really -- how far are they driving? Where are they going?

CHAIRPERSON NICHOLS: Luckily, we have some connections with universities. That's a good project. All right.

Unless there are any other burning questions at this point, I'm going to ask for a motion.

BOARD MEMBER BERG: I would just like to ask a quick -- because I'm not quite sure where we're going yet. Are you going to put that in the motion?

CHAIRPERSON NICHOLS: I wasn't actually planning on making any changes. I was just going to ask to move the recommendation at this point.

But if there are any specific amendments that people would call on or request they want to add to, I think we should be open to that.

BOARD MEMBER BERG: I guess for future, my concern is that it feels to me that the funding is benefiting a the right time at the right place. So those manufacturers that happen to have cars coming out today are really going to benefit just because of good timing.

And I think we have a lot of exciting cars coming out. And part of this incentive program is to incentivize from our perspective a lot of different types of vehicles from many manufacturers to move this whole process forward, not to incentivize the manufacturer that is benefiting from good timing and therefore we have kind of all of our eggs in a few baskets of technology rather than spreading the incentive.

So for future, I'm not suggesting anything today. But certainly for future, I would be interested in being mindful that we really want to have as many clean cars out on the marketplace that are gaining momentum that are giving us information that can drive this technology forward.

CHAIRPERSON NICHOLS: I totally agree with you. I guess I would just add, as I understand it, there are people looking at the future of 118 and a number of kind of significant changes to reflect the information that you've gained over the last few years and the phenomenal success we've had. This program needs more money. And when it gets more money, we need to be able to spend it I think in ways that accomplish the kinds of goals you're talking about. So points well taken.

BOARD MEMBER RIORDAN: Do you need a motion?

CHAIRPERSON NICHOLS: I do.

BOARD MEMBER RIORDAN: I'd like to move --

CHAIRPERSON NICHOLS: Staff wants to add something else.

MR. PANSON: I'm going to defer to Tom.

CHAIRPERSON NICHOLS: Tom has moved to speak and I think we should hear from him.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Ms. Berg, I think that's an example of one of the targeted approaches that we could consider for next year for -- I think what you're suggesting is if you're a new manufacturer into the marketplace, maybe you could have incentives for the first X vehicles. And then after that, you wouldn't get any. That would be one of the kind of things that we could look at next year when quite simply the number of vehicles being sold is going to drive our ability to fund anything more than a few hundred dollars probably if we gave it to everybody. So that's a great idea.

BOARD MEMBER BERG: Another thing. This is a great problem to have. From a business perspective, this really means that we're looking at the right things and when you have too much, that's not a bad problem.

MR. PANSON: I'll just remind the Board, we bring the plan to you every year with every new funding allocation. You're going to see us a year from now and be able to tell us whether you like the approach we're taking.

CHAIRPERSON NICHOLS: We're going to want changes. We'll be in conversations before that, I'm sure.

BOARD MEMBER D'ADAMO: I'd like to make a motion, but just want to make certain that the Resolution will include language directing staff to come back next year with some type of approach to address the San Joaquin Valley issues that I raised earlier.

CHAIRPERSON NICHOLS: Yes. And also to raise the issues about the making we're properly incentivizing new technologies that are going to contribute to our air quality goals here. And not just the -- because we're clearly at a point of success where if they get to where they want, Nissan could -- customers of the Leaf could get all the funds. And that would be good for us in one sense but not accomplishing all of our goals.

BOARD MEMBER SPERLING: Along those lines, we didn't talk much about the heavier vehicles. And I think I'd like to add something that there be some assessment of how we make sure we're really strategically stimulating investments in trucks, use of hybrid and electric drive technology in trucks. Because that's probably in many ways more important. We're likely to have a more beneficial impact there. But we need to think about it strategically.

CHAIRPERSON NICHOLS: Okay. So there's three points we'd like included in the resolution. We have a motion from Ms. D'Adamo.

Do we have a second?

BOARD MEMBER RIORDAN: Second.

CHAIRPERSON NICHOLS: All in favor, please say Aye.

(Ayes)

CHAIRPERSON NICHOLS: Opposed? None.

Thank you very much.

This has really been an interesting discussion. Appreciate everybody who come out to give us their input. Okay.

This is a public hearing to consider the approval of the proposed State Implementation Plan revisions for the eight-hour ozone standard, and minor technical revisions to the PM2.5 transportation conformity budget -- changes to the 8-hour and PM2.5 SIP transportation conformity budgets. Hard to get all that into one mouthful. Thank you, everybody.

And just to explain a little bit, what we're talking about here relates to an action that we took with respect also to the South Coast and San Joaquin in December where we acted on the diesel rules for in-use trucks and off-road equipment. We made similar technical revisions to the SIPs for the South Coast and the San Joaquin Valley in April for the PM2.5 SIPs. And now we're going back to the ozone SIP.

This stuff is mind-numbing, if I may say so. This is to people that sit on this Board and pay attention to these issues. I hope we can explain it in our presentation here to the satisfaction of -- I know some people always say it's for their mother or their great aunt or whoever. Let's try to explain it for the benefit of anybody in the audience.

Mr. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Let me see what I can do here?

As a result of the revisions of the PM2.5 SIPs that you took action on in April, EPA has now proposed to approve the South Coast and San Joaquin Valley PM2.5 SIPs, with the exception of a contingency measure issue we're still working on with EPA.

EPA's final approval would recognize actions taken by ARB and the South Coast and San Joaquin Valley districts to comply with the 2014 attainment deadline.

Today, staff is proposing parallel revisions for ozone. These revisions will provide the necessary information for EPA to fully approve the San Joaquin Valley and South Coast 8-hour ozone SIPs. Under a consent decree, EPA must take final action on these ozone SIPs by December 15th of this year.

Staff is proposing to update the progress calculations and transportation conformity budgets to account for emission inventory improvements and regulatory action since the SIPs were adopted in 2007. Staff is also proposing to revise the rulemaking calendar for the agricultural equipment measure for the San Joaquin Valley consistent with the other remaining measures.

Finally, staff will update the action ARB and the districts are taking too identify and implement advanced technologies to reduce ozone-forming emissions.

Mr. Jeff Lindberg with the Air Quality and

Transportation Planning Branch will now provide the staff report and describe the proposed SIP revision.

Jeff.

(Thereupon an overhead presentation was presented as follows.)

CHAIRPERSON NICHOLS: So far you're doing great.

EXECUTIVE OFFICER GOLDSTENE: Thank you.

AIR POLLUTION SPECIALIST LINDBERG: Thank you, Mr. Goldstene.

Good morning, Madam Chair and members of the Board.

In this presentation, I'll describe California's progress implementing the 8-hour ozone State Implementation Plans, or SIPs, in the South Coast and San Joaquin Valley -- San Joaquin Valley and present a proposed SIP revisions to account for the Board's recent actions to reduce emission from diesel-fueled vehicles and equipment. The revisions to ozone SIPs staff is proposing today largely mirror these the Board adopted in April for the PM2.5 SIPs.

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AIR POLLUTION SPECIALIST LINDBERG: Today, we are asking the Board to approve revisions to the South Coast and San Joaquin Valley ozone SIPs. Staff's as proposed ozone SIPs revisions are limited to reasonable further progress tables and associated reductions for contingency purposes, adjustments to the transportation conformity budgets, an updated ARB rulemaking calendar for the in-use agricultural equipment measure, and an update describing ARB's actions to identify advanced emission control technologies.

Finally, ARB staff is proposing minor technical updates to the PM2.5 SIP transportation conformity budgets for the South Coast and San Joaquin Valley.

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AIR POLLUTION SPECIALIST LINDBERG: Let's start with a brief look at where we are in the ozone SIP process.

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AIR POLLUTION SPECIALIST LINDBERG: In 2007, the Board approved the South Coast and San Joaquin Valley ozone SIPs and submitted them to U.S. EPA for approval. Both the South Coast and San Joaquin Valley have the most significant ozone attainment challenges in the nation, so the SIPs identified an expeditious attainment deadline of 2023 as allowed by the Clean Air Act.

The core of those SIPs was the State's strategy to control emissions through the accelerated turnover of existing diesel-powered vehicles and equipment and to clean up emission source associated with California's major ports.

Recognizing the challenge these two areas were faced with, the SIPs also included the commitment to reduce emissions through long-term advanced technology strategies.

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AIR POLLUTION SPECIALIST LINDBERG: As soon as the SIPs were adopted, ARB and the districts began implementation with a focus on reducing emissions from existing diesel vehicles and equipment.

The Board adopted regulations that accelerate the cleanup of commercial trucks, off-road construction and mining equipment, and goods movement equipment used at ports and rail yards.

The Board also adopted controls on consumer products, which are significant sources of ozone-forming volatile organic compound emissions. To ensure passenger vehicles remain as clean as possible, the California Bureau of Automotive Repair strengthened the Smog Check Program by including diesel vehicles, tightening cut points, and inspecting evaporative emission control systems.

Both the South Coast and San Joaquin Valley Air Districts have also taken significant actions to meet commitments to reduce emissions from sources under their jurisdictions.

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AIR POLLUTION SPECIALIST LINDBERG: Today's revisions are needed in order to account for emission changes due to the Board's recent actions. The revisions follow the same methodology staff used to revise the PM2.5 SIP in April of this year. Since the Board's April action only applied to the PM2.5 SIPs, the staff is now proposing revisions to the ozone SIPs. EPA is currently reviewing the South Coast and San Joaquin Valley ozone SIPs for federal approval and is required to complete this review by December of this year.

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AIR POLLUTION SPECIALIST LINDBERG: I'll now turn my focus to the proposed SIP revisions.

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AIR POLLUTION SPECIALIST LINDBERG: There are four parts to ARB's proposed ozone SIP revisions. The first two updates are largely accounting exercises to reflect recent State and local rulemaking actions and the economic recession.

With respect to the reasonable further progress demonstrations, our current estimates now indicate that we are achieving even greater near-term emission reductions than was envisioned when the SIPs were initially adopted.

In addition to meeting the required progress benchmarks, the updated demonstrations continue to set side sufficient additional reductions to satisfy federal contingency measure requirements. The proposed transportation conformity budgets ensure that emissions from motor vehicles remain within the limits established in the SIPs and reflect adopted regulations.

Staff is also proposing minor technical updates to the PM2.5 SIP transportation conformity budgets. These updates account for emission reduction changes in district mobile source measures as well as correct minor data entry errors in the existing PM2.5 SIP budgets.

In May, EPA approved the San Joaquin Valley's indirect source review, or ISR, rule, but disallowed California from taking direct emission reduction credit for the rule. The proposed budgets account for EPA's action. The rule requires an land developers to mitigate the indirect emissions from new development or pay a mitigation fee to the district to fund off-site emission reduction programs. We will work with EPA to quantify the benefits as they occur so that credit can be taken in the future.

In the South Coast, the updated budget reflects changes to how the district quantifies emission reductions achieved through the high-emitting vehicle identification program. The program funds durable repairs on high-emitting vehicles or incentivizes their removal through the district's vehicle scrap and replace program. The PM2.5 budgets initially included the emission reductions district staff expected to achieve through the measure. However, the actual emission reductions achieved by the high emitter ID program have not yet been quantified by the district. The district remains committed to implementing this program and achieving the committed emission reductions.

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AIR POLLUTION SPECIALIST LINDBERG: Similar to the rulemaking calendar's updates approved in April, staff is proposing to update the rulemaking calendar for the cleaner in-use agriculture equipment measure. This measure, along with the measures updated in April, will be brought to the Board for consideration in 2013.

The April revision addressed the outstanding commitments that would be in place for PM2.5 attainment. While the San Joaquin Valley's PM2.5 SIP did not rely on emission reductions from the agricultural equipment measure, the Valley's ozone SIP did. Staff is not proposing changes to the specific measure beyond the regulatory development timing.

Early reductions are already occurring through incentive-based programs, such as one run by the Natural Resources Conservation Service to modernize California's agricultural tractor fleet. To date, the NRCS and the Valley Air District have provided more than $40 million to modernize more than 800 tractors in the San Joaquin Valley and the district is currently soliciting an additional projects to replace 700 more tractors over the next year.

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AIR POLLUTION SPECIALIST LINDBERG: Finally, staff is proposing to update the long-term strategy commitment to expand the discussion of actions that ARB and the districts are taking to identify and implement advanced technologies to reduce ozone-forming emissions.

For 8-hour ozone non-attainment areas classified as extreme, the Federal Clean Air Act allows ozone SIPs to include a long-term strategy for identifying and implementing advanced technology measures. These advanced technologies must be implemented by 2020.

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AIR POLLUTION SPECIALIST LINDBERG: As California moves towards a low-carbon future, many of the technologies and strategies that reduce the state's impacts on climate change will also reduce emissions from the same combustion sources that are the root of the State's ozone attainment challenges.

While still in the early stages of development and commercialization, we expect that by 2020 we would see lower emission energy and vehicle technologies and more efficient transportation and goods movement systems. These technologies and systems would serve the dual purpose of meeting California's ozone challenges and reducing the state's contribution to global climate change as required by AB 23.

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AIR POLLUTION SPECIALIST LINDBERG: Demonstrating advanced technologies is a collaborative effort at the State, federal, and local levels. One year after the SIPs were adopted, ARB, EPA, and the South Coast and San Joaquin Valley Air Districts signed a Memorandum of Agreement establishing the Clean Air Technology Initiative, with the purpose of evaluating innovative technologies that have the potential to reduce emissions.

As you heard earlier this morning, California's Assembly Bill 118 established ARB and CEC programs with the goal of fostering advanced clean technologies for vehicles and the fuels they use. During the previous item, staff outlined the important air quality investments the staff is making for the two programs.

Locally, both the San Joaquin Valley and the South Coast Air Districts have programs to explore advanced technologies that could reduce emissions from sources within their boundaries. In each of these efforts, there is extensive collaboration.

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AIR POLLUTION SPECIALIST LINDBERG: In addition to the four SIP elements I just described, staff also looked at the impacts the improvements to the emissions inventory that resulted from recent rulemaking activities would have on the air quality modeling in the South Coast and San Joaquin Valley.

Although the emission changes in both the South Coast and San Joaquin Valley are small, the changes in the San Joaquin Valley are larger due to additional improvements in the PM2.5 SIP that was developed in 2008.

Determining the specific impacts of these improvements on the attainment emissions targets can only be done through a comprehensive new air quality modeling effort. Based on a qualitative analysis of the modeling, ARB staff believe the attainment target is still appropriate, which would reflect a 72 percent reduction in NOx emissions for 2002 levels. However, up to a 75 percent reduction could be needed based on the inventory used in the original modeling. In either case, the Board's commitment in the 2007 State strategy is to achieve the emission levels that are needed to provide for attainment.

In order to re-evaluate the attainment targets, we plan to conduct new air quality modeling reflecting an updated emissions inventory. We would commit to complete this modeling by the end of 2014 or the deadline for submission of new SIPs for the expected revision to the 8-hour ozone standard, whichever is earlier. This revised modeling would be used to establish updated emission targets and define the emission reductions needed as part of the long-term strategy that must be in place by 2020. ARB staff had a productive discussion with EPA regarding this approach, and we will continue to work with them to ensure the ozone SIP is approvable.

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AIR POLLUTION SPECIALIST LINDBERG: In closing, staff recommends that the Board approve submittal of the SIP revisions and transportation conformity budgets to EPA. Doing so will provide EPA with the information it needs to approve California's ozone SIPs as well as the PM2.5 SIP transportation conformity budgets.

Thank you.

CHAIRPERSON NICHOLS: Would you anticipate then that these changes being forwarded to EPA that EPA will be able to approve these SIPs in December?

DEPUTY EXECUTIVE OFFICER TERRY: Yes. We did get a letter from EPA you should have in your packet. And they recognize, as you heard in the staff report, that comprehensive modeling would need to be done to really address the uncertainty as to whether it's a 72 or a 75 percent reduction that's ultimately needed.

So our commitment that was embedded in the 2000 SIP that the Board approved essentially included a 75 percent reduction commitment. So that would go forward and remain in place. We're not proposing any changes to that commitment.

CHAIRPERSON NICHOLS: We also had a recent bit of controversy with the EPA over the issue of NOx versus VOC reductions in the Valley SIP. Is that issue also in the course of being resolved in this way or some other path to resolution?

DEPUTY EXECUTIVE OFFICER TERRY: Actually, that was happily resolved with their proposal to approve the PM2.5 SIP. And this is only for ozone. So it's not an issue here.

CHAIRPERSON NICHOLS: Good. Okay. Glad to hear it.

Dr. Sperling.

BOARD MEMBER SPERLING: Along the theme of mind-numbing, you know, I used to know a fair amount about transportation conformity budgets. They never made much sense to me years and years ago. I mean, are we -- is this -- should I be paying attention to that?

DEPUTY EXECUTIVE OFFICER TERRY: We're relieving you of that painful obligation.

The bottom line is that the conformity budgets are very important to ensure that the transportation planning process is consistent with the air quality planning process. So the budgets that have to be adopted must be consistent with the emission estimates for on-road vehicles that are in the progress calculations as well as the attainment calculation. So that's the purpose of all the back and forth. And when we have the on-road truck rule and new emission estimates, then that needs to be -- the budgets need to be adjusted.

So, for example, we would not want a growth in VMT to overtake the benefits of our truck rule, for example. So that's why we do these adjustments.

BOARD MEMBER SPERLING: Not to be demeaning, but is this really just in the noise or -- these conformity budgets? You know, I remember --

CHAIRPERSON NICHOLS: Do they constrain anything or push any action --

BOARD MEMBER SPERLING: Exactly.

DEPUTY EXECUTIVE OFFICER TERRY: Well, they're essentially a backstop because under state law we're required to take the VMT estimates and the transportation plan and imbed them in the SIP. So at the time of the planning process, that's where the opportunity is to achieve more reductions from the transportation sector.

But once those plans are in place, it's critical that those same assumptions and estimates or projections be incorporated into the SIPs so that there's not any consistency. And that's -- you know, you can say it's in the noise from a calculational standpoint where we make these minor adjustments, but it's really an essential part of the ZIP planning that we have a sound estimate of the transportation emissions for the future.

BOARD MEMBER SPERLING: Being a little more positive with the SB 375 process where models are being developed that really are more fine-grained really than anything I understand used for the conformity analysis, is there some way of taking advantage of those models, creating some kind of synergies here somehow out of this mess of models and calculations and, you know, to create a more substantive exercise that really is useful for creating incentives and guiding investments and so on?

DEPUTY EXECUTIVE OFFICER TERRY: That's a great question, and it is very much a positive. Over the years, the transportation -- details of the transportation modeling has not been something that has had a lot of scrutiny within a SIP planning process. So this has been very impressive how the NPOs have opened up their books and posting all the data. They are running sensitivity analysis as we do of the staff's technical review of the greenhouse gas reductions attributed to the sustainable communities strategies within the transportation plans.

There is a lot of work going onto make it more transparent and open; the opportunity to run different types of scenarios. As we move forward, to improve the models so that the benefits of sustainable community strategies can better be accounted for. And when we had our Regional Targets Advisory Committee, there was a lot of discussion about the need to improve the models to better reflect some of these important strategies we expect to be developed under SB 375.

So we think it's very important work that's going on that will help us with our SIP process and improve the modeling all around.

BOARD MEMBER SPERLING: I know you've got at least one great modeler on your staff, a good U.C. Davis graduate that will help with this.

DEPUTY EXECUTIVE OFFICER TERRY: Absolutely. More than one.

CHAIRPERSON NICHOLS: Okay. Anybody else want to speak up on behalf of any other University of California branch or any other programs?

I have no witnesses who have signed up to speak on this item, so I believe my assessment of it was correct.

However, I know it's important. And in all seriousness, it's an important step forward because it will enable us to have an approved SIP. And that's probably something that -- we know that's something of great value and not something we've always had. That really is good news.

I would like to ask for a motion to approve the staff recommendation.

BOARD MEMBER RIORDAN: I would so move, Madam Chair, and thank staff for briefing me on this. It's a very positive thing moving forward.

CHAIRPERSON NICHOLS: Second?

BOARD MEMBER BERG: Second.

CHAIRPERSON NICHOLS: All in favor please say Aye.

(Ayes)

CHAIRPERSON NICHOLS: Any opposed?

Great. Thank you. And congratulations.

CHAIRPERSON NICHOLS: We have one other item before us that is a very pleasant duty, but before I do that, I'm actually going to call for public comments, because when we're done, we're going to adjourn the meeting. So if I may, if there's anyone in audience who is here hoping to speak during the open public comment time -- we have one. Okay.

Reede Stockton of the Center for Community, Democracy, and Ecology. Please come forward.

MR. STOCKTON: Chairman Nichols and members of the Board, thanks for very much for this opportunity to speak with you today.

I want to make three procedural recommendations regarding to the scope -- and regarding the Scoping Plan functional equivalent document that you're due to consider on August 24th.

AB 32 specifically directs ARB to avoid disproportionate impacts on communities of color and low-income communities and to ensure that GHG reduction activities complement existing air quality regulations and reduce toxic air contaminant emissions. And to ensure that ARB took that direction seriously, the Board was further directed to empanel an Environmental Justice Advisory Committee consisting of representatives from impacted communities throughout the state that included low-income communities and communities of color.

The Environmental Justice Advisory Committee convened by ARB has recommended against cap and trade, but

ARB has chosen to disregard that recommendation. And I think it's an indication of the working relationship that ARB has had with the Environmental Justice Advisory Committee that seven of the eleven members of EJAC are parties to the lawsuit that was brought against ARB and asking to reconsider the cap and trade recommendation.

So the question now is how to repair the relationship between ARB and communities of color and low-income communities. And that's the purpose of the three recommendations I have.

I'd like to recommend that ARB slow down the time line for consideration of the functional equivalent document supplement.

Second, I'd like to recommend that ARB fully consider a broad range of alternatives to cap and trade by expanding the options considered in both number and detail.

And third, I'd like to recommend that ARB hold a series of hearings to consider those alternatives in the communities that are most heavily impacted by toxic air contaminants.

There's still an opportunity for ARB to demonstrate that it strongly supports the environmental justice mandate in AB 32. And I'd like to urge ARB to take advantage of that opportunity.

CHAIRPERSON NICHOLS: Thank you. Thank you.
Did you have a written version of those comments?
MR. STOCKTON: No, but I will be submitting some written comments.
CHAIRPERSON NICHOLS: Thank you very much. I took notes. Appreciate your coming. Okay.
We have another public commentor?
MR. FOLKS: Yes. Hi, Madam Chair. Tom Folks here with MightyCon representing Bosch, Audi, BMW, Daimler, and BMW.
Just a reminder to some of your Board members, I've been talking to Clarlyn Fraiser of your staff. We have a couple diesel cars out at the corner of I and 10th Street. Between now and the time you get to your next engagement after this, please stop by and test drive a car. Won't take you but a few minutes. We're right outside.
CHAIRPERSON NICHOLS: Thank you.
If we don't go to the car, the cars will come to us.
It's now my pleasant responsibility here to move on to the Haagen-Smit Clean Air Awards. And I believe the idea is that I'm going to move down there to the present the awards with Mr. Goldstene's help and that the award recipients will come forward.

EXECUTIVE OFFICER GOLDSTENE: We have some opening --

CHAIRPERSON NICHOLS: Oh, we do.

EXECUTIVE OFFICER GOLDSTENE: We have slides and pictures.

CHAIRPERSON NICHOLS: That happens before we present the award.

EXECUTIVE OFFICER GOLDSTENE: Yes.

CHAIRPERSON NICHOLS: Sorry. I wasn't here for the rehearsal. I was in Washington.

EXECUTIVE OFFICER GOLDSTENE: It's been carefully blocked.

CHAIRPERSON NICHOLS: Oh, look. People are coming forward. This is great. This is so well organized. I see the awards lined up there. They look beautiful.

So which part of this script do I get to read?

EXECUTIVE OFFICER GOLDSTENE: You could actually read the script. I think either one of us could make this presentation. There are a series of slides --

CHAIRPERSON NICHOLS: The thing that says discussion at the beginning? I have some slides.

EXECUTIVE OFFICER GOLDSTENE: Where it says slide one.

CHAIRPERSON NICHOLS: Oh, I do. It begins by saying the Haagen-Smit awards. Our Executive Officer, James Goldstene, will introduce the awards and this year's recipients. I will then invite each recipient to come to the podium to receive their award and say a few words.

EXECUTIVE OFFICER GOLDSTENE: How's that?

CHAIRPERSON NICHOLS: Perfect.

(Whereupon a slide show presentation was made as follows.)

EXECUTIVE OFFICER GOLDSTENE: So I'll go through the slides as quickly. We're showcasing this year's Haagen-Smit Clean Air award recipients here at today's Board meeting.

At this annual events, we are reminded of the important contributions of late Arie Haagen-Smit that he made to air pollution science and the significance of his career as ARB's first Chairman.

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EXECUTIVE OFFICER GOLDSTENE: Haagen-Smit was the native of the Netherlands, was a leader in developing air quality standards based on his research efforts and is known by many as the Father of Air Pollution Control.

Through a series of experiments, he found that most of California's smog resulted from photochemistry which emissions from motor vehicles and industrial facilities reacted with sunlight to create ozone. This breakthrough provided the scientific foundation for the development of nationwide air pollution control programs.

Next slide.

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EXECUTIVE OFFICER GOLDSTENE: Since 2001, the Air Resources Board has sponsored the Haagen-Smit Clean Air Awards. The awards are given to two or three people each year to recognize significant career efforts in at least one of several air quality categories, which are research, environmental policy, science and technology, public education or community service. Over the last ten years, 25 distinguished individuals have received the award.

This year's winners were chosen based on their individual accomplishments. Although they all have something in common, all three winners have contributed to our efforts in California to reduce the health impacts of diesel PM.

I'm pleased to announce the three recipients of the award. Actually, Chairman Nichols, maybe you should do this.

You can pick up or I can just --

CHAIRPERSON NICHOLS: I could begin with the individual presentations. I would be thrilled to do that actually.

EXECUTIVE OFFICER GOLDSTENE: Yes.

CHAIRPERSON NICHOLS: So I can read information about them, and then I may editorialize a little bit though in addition to what's the official script. I can't help myself. Okay.

So our first awardee is Dr. John Froines, who's being recognized for his work in the area of environmental health research.

And is there a slide that's going to come up here?

Dr. Froines has a long history of teaching and conducting research on air pollution related health effects. He's a professor in the Department of Environmental Health Sciences at UCLA. He joined this faculty of the School of Public Health in 1981. He holds several key positions in health sciences and toxicology programs, including serving as director of the Southern California Particle Center and super site. He's also Associate Director of the Southern California Environmental Health Sciences Center and Director of the UCLA Fogarty Program in Occupational and Environmental Health. He has served as Director of UCLA's Center for Occupational and Environmental Health Sciences for 25 years and was Deputy Director of the National Institute for Occupational Safety and Health before coming to UCLA. He also Chairs California's Scientific Review Panel on

Toxic Air Contaminants.

Dr. Froines' area of expertise is toxicology and exposure assessment. His air pollution related research includes studying the health effects of exposure to particulate matter, lung cancer, and non-cancer health effects attributable to air pollution and the biochemical mechanism of the carcinogenicity of toxic air contaminants.

Dr. Froines' teaching and research is highly regarded for enhancing the understanding of toxic air contaminants and their health impacts through his dedication to translating scientific information in ways that are useful for public policy setting. His work has had a tremendous impact nationally and internationally.

Last year, his strong commitment to outstanding research was recognized by the South Coast Air Quality Management District for the Clean Air Award for his promotion of good environmental stewardship.

I hate to be second to the AQMD in anything, but in this regard, I'm happy to be able to join them in this regard. As you can hear from what I've just read, John has an extraordinary record as a scientist and as a public servant. And we are thrilled to be able to recognize him today for his commitment to providing strong scientific basis for our actions. So thank you very much.

I'm going to go through these slides and then go do the actual handing off of the awards.

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CHAIRPERSON NICHOLS: So our next award goes to Dr. Joan Denton. Dr. Denton has 29 years of professional experience and consistent accomplishment in environmental health programs. She recently retired after 13 years as director of the California Office of Environmental Health Hazard Assessment. During this time, she was responsible for the performance of scientific risk assessments for the regulation of chemicals in the environment and for providing information about the health and environmental risks of chemicals to government agencies and the public.

As Director, she was also responsible for providing overall scientific guidance and consultation to the Secretary of the Environmental Protection Agency and the Cal EPA Boards and Departments, including ours.

Dr. Denton was appointed and reappointed as Director of OEHHA by three different governors. During her tenure at OEHHA, she was instrumental in the identification of diesel particulate matter, environmental tobacco smoke, and lead, just to site three not very controversial items as toxic air contaminants.

California's air quality standards for particulate matter, ozone, and nitrogen dioxide were revised to include effects on sensitive populations, including children and infants. She also oversaw the implementation of the Safe Drinking Water and Toxic Enforcement Act of 1986, also known as Prop. 65.

We're very proud that Dr. Denton was at ARB prior to her serving as director of OEHHA so we can claim her as one of our own. She worked in a number of programs, including the identification of diesel particulate matter.

Thank you, Joan Denton, for your important contributions to improving California's air quality.

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CHAIRPERSON NICHOLS: And our third award, we're very happy to be able to present three this year, goes to Dr. Bradley Edgar in the area of science and technology. Dr. Edgar is co-founder and President and Chief Technology Officer of Cleaire Advanced Emission Controls, a company which is based in the San Francisco Bay Area.

ARB's diesel regulations have relied on the development and commercialization of retrofit technologies over the last decade. I want to make that point and say it twice. We couldn't adopt that standards that we do if we didn't have the technology that Dr. Edgar has pioneered as a basis for saying this can be done. We have to have that as a part of our standards setting or we could not have been able to move forward as we have aggressively to protect public health.

His work has pioneered important breakthroughs in developing advanced technologies. Cleaire has emerged as a leader in the diesel retrofit market, having received more than ten ARB verifications for its products and delivering more than 11,000 diesel retrofits into commercial use.

Dr. Edgar began researching and working in the field of mechanical engineering nearly 20 years ago and has been the inventor or co-inventor for 11 U.S. patents related to U.S. emission control technology. Dr. Edgar earned a reputation as an industry leader helping to deploy the technology needed to keep California's air clean. He's demonstrated leadership in the California business community, helping to solve environmental problems while also contributing to economic development and job growth.

In 2008, Cleaire was awarded the Clean Air Award for technology and research by Breathe California, in recognition of the company's contribution to improving air quality. So thank you, Brad, for your commitment to innovation and clean air.

And now I believe we can ask all three of these individuals to come forward and receive their awards and get your pictures taken with James Goldstene and myself.

And Board members get to ask questions -- you can ask any kind of questions you like or make comments. Let's all have a round of applause.

(Applause)

CHAIRPERSON NICHOLS: It's really exciting to have the three of you here today. And I just can't say enough about how great it is that we're able at one time to recognize people who have done something in an area which was very controversial at the time that we began. I'm thrilled to say that we have now been joined by many other agencies worldwide in this regard. When we started, it was a lonely path. And each of these individuals I know took a lot of heat in various ways for the work they did and kept true to their science, scientific integrity, and their willingness to serve the public good. So thank you again.

(Whereupon the awards were presented.)

(Applause)

DR. FROINES: I was going to say something.

CHAIRPERSON NICHOLS: You have three minutes, remember.

(Laughter)

DR. FROINES: I'll address the Board. I think I can do three minutes. You know, the longer the talk, the more difficult it is to do a good job.

So anyway, first, I want to thank the Board for awarding me the Haagen-Smit award. It's truly a significant honor. I will cherish it throughout my continuing career -- continuing career.

I'm pleased to receive the award also since I follow distinguished scientists, including our awardees today. And so I'm in a good group of people, and I'm very proud to be part of that group of people.

As you know, working in the field of air pollution is complicated and it's controversial. But I'm proud to say it has been an endeavor that I will hold as one of my most important contributions. In particular, following on what Mary said, I want to single out the role of the Scientific Review Panel who have been before you a number of times in the identification of diesel particulate as a toxic air contaminant. As you know, diesel remains controversial, but there is no doubt in my mind as a scientist that it is damaging toxicant which adversely affects people's health.

I'm proud of our contribution in the science and believe that the policy decisions the Board and ARB staff have made are very beneficial to protecting the public health. The SRP and OEHHA has addressed more than 300 risk assessments during our history, and that puts California in the forefront of toxic air contaminants in the United States.

As Mary said, I have directed the Southern California Particle Center for twelve years, and we have conducted exemplary research. Our team has demonstrated continuing problems, including cardiovascular disease, neurologic effects, developmental effects, allergic airway disease, and asthma. We've characterized the physical and chemical properties of airborne particulate matter and vapor phased compounds.

We have been making important contributions to the mechanisms of disease from air pollutants, and we are developing crucial tools to study the road map -- the road map from upstream airborne exposures to downstream disease and illness. In other words, our research tries to develop the mechanistic underpinnings of health effects. And in particular, we are trying to define with great care the starting point and the subsequent steps that ultimately lead to health effects.

We've developed probably ten assays, probably ten quantitative assays, and those quantitative assays have provided important dose response information, and that work continues.

I want to just mention two new areas that are I think quite important. Our recent work on the toxicity of vapors, not only particles, have shown important toxicologic outcomes. Vapors are toxic, and they have not gotten the attention that they deserve. And in the future, we're going -- we don't regulate the vapors, for example. We regulate diesel particulate, not diesel exhaust. And we need to address the vapor phase in the future.

Secondly, our recent AQMD British petroleum funded study on emissions and consequences of rail traffic has produced significant results, and we have demonstrated significant toxicity associated with diesel from rail yards: San Bernardino, Long Beach, and Commerce in Southern California. And so it's not just vehicles we need to be concerned with, but we need to look into the rail issue in greater detail.

Again, I'm proud of our work, and I believe we've made substantial contributions. I'm very pleased to have worked with fine scientists, including ARB and AQMD over the past 30 years. I'm very pleased to have contributed to the overall effort. And I thank you again. And I wish you all the best, and I appreciate your recognition. Thank you.

(Applause)

DR. DENTON: Mary, I think I can keep mine under three minutes.

I want to follow John and just echo what he said in the beginning. I really want to express my sincere appreciation to the Board for this honor.

When I look at the people who proceeded me, whether it be John Holmes in the very beginning, Jim Pitts, Mike Walsh, Margo Oge, Mary Nichols, I mean, so many pioneers, so many people that I really looked up to during my career. And to join that group along with John and Brad, it really is a privilege.

And I'm also mindful this isn't the end, that there will be other individuals who will be expressed in the future and to join that group.

Like I was saying earlier, it's like a metal of honor from the ARB. It's a great award and how much I appreciate it.

As you mentioned in the beginning, I did start my career as a staff person at ARB. So I'm much a product of the ARB. I learned about state government. I learned about bureaucracy. I learned about the role of a regulatory agency. I came in with a science degree. But still, my whatever was honed through my work at the ARB. And I learned about the culture of environmental protection. And I used all of that when I became director of OEHHA where I was fortunate to serve the last 13 years of my career.

Many times I've left this building -- when I look at all the work that we did and all the work that we've done and all the work that you continue to do, it kind of comes down to me when I left the building or when I would leave the building in the evenings after work, I was very conscious many times of the fact that what I was breathing, I was breathing clean air that I could take a deep breath and I didn't smell exhaust or I didn't smell burning. I mean, the unusual times is when there was some kind of an ag burning or brush fire or something.

The fact that you go to other counties and you get off the plane and you immediately begin to smell the air. How much we have to be thankful for for the work that the Air Board and my agency and other regulatory agencies have done in California and why you and why we continue to be leaders.

Over the years as my career, I did learn -- as director, I did learn a quote at ARB that I'd like to -- and it's not because I was at ARB, but here is the quote. It's "nothing is impossible to the person who doesn't have to do it." I'm sure it was just incidental that I was at ARB at the time. But anyway, I quote that award because there are so many people and so many people in the room here who share in this aware. It is an individual award with my name on it.

Without these people's support, without their commitment, without their professionalism, without their hard work, I would not be standing here today.

So first of all, I would like to have the people who were in the Air Unit at OEHHA who are in the Air Unit at OEHHA to stand and be recognized. Come on, stand up.

(Applause)

DR. DENTON: And then I would like actually the entire part of the audience that is the OEHHA staff to stand and be recognized. Maybe they didn't work in the Air Unit. But they deserve much of the recognition.

(Applause)

CHAIRPERSON NICHOLS: You brought your own cheering section.

(Laughter)

CHAIRPERSON NICHOLS: That's great.

DR. DENTON: And finally, I'd also like to recognize two of my relatives who are here, my sister and my cousin: My sister, Janet and my cousin, Peggy. I really appreciate them being here.

(Applause)

DR. DENTON: So finally, I'd like to say over my years in state service and in the spirit of Dr. Haagen-Smit, I really have come to realize how connected we are to the natural world. We often so much take it for granted in that we many times I think take the approach the natural world exists to help our survival.

But I have come to believe -- and I think this will be what I'm continuing to do in my future career. I have come to believe the natural world has a right to be protected, and that we -- we are fortunate to be able to do so.

So it's this effort to which I have dedicated my professional life, and I'm really grateful to you for the recognition of that. So thank you very much.

CHAIRPERSON NICHOLS: Thank you.

(Applause)

DR. EDGAR: Chair Nichols and members of the Board and staff, thank you for giving me a few minutes to speak. And Chair Nichols, I hope you won't sound the buzzer or put the light on me too soon.

CHAIRPERSON NICHOLS: We haven't been counting down the minutes.

DR. EDGAR: I felt that too many times in the past.

This room and this podium are quite familiar to me. And standing here now, I recall the first time I testified before your Board in 2001. It was just after we started Cleaire, but before the first verification procedure and the first diesel fleet rule for transit buses was even approved. This was the beginning.

It's amazing to think how much has happened over the last ten years and about how much we have all learned together.

To start, I'd like to thank a few people because, for me, this is truly a team award. This is a Cleaire award. But first I'd like to thank my wife and our three children for their love and support. As in any profession, the hours can be long. And for me, it's sometime hard to leave work in the office. So I thank them for their patience and their tolerance. They wanted to be here today, but I told them that CARB meetings are rated PG 13 and that they might not be able to sit still with all the excitement.

Next, I'd like to thank the people who supported my nomination, beginning with my research advisor from Berkeley, Professor Bob Dibble, who initially suggested that I be a candidate for this award. And then Professor Bob Sawyer and other of my graduate advisors and mentors in my career, some known to this audience. Kevin Shanahan, the founder and owner of Cleaire; Joe Kubsh, the Executive Director of MECA, who's here today; and also Jack Broadbent, John White, and Diane Bailey who could not be here today. It's been a privilege to know and work with these people, and I'm grateful for their support.

Also like to thank my colleagues at Cleaire starting with my former classmates and lab mates at the story combustion laboratories at Cal, Dr. Mark Rumminger and Dr. Michael Strikesber. They're world-class combustion and emission engineers, the true heavy lifters on the technical side of our business and absolute believers in the integrity and purpose of our work.

I'd like to thank Ellen Garvy, Tom Swenson, and Tim Taylor who helped me broaden my thinking so I can now see how technology and engineering meshes with the policy and regulation of air quality. And more recently, Gale Plummer who became the Cleaire CEO a few years ago. Gale has helped to transform our company from a scrappy start-up into a full scale commercial business. He has provided the adult supervision at the right time in our growth and provided me with invaluable mentoring and support for this process.

Most importantly, I'd like to thank Kevin Shannahan, the founder, funder, and visionary leader of Cleaire. And I'll say a little bit more about him in a moment.

Finally, I want to thank the Selection Committee for giving me this award. It certainly means a lot to me.

I'd also like to congratulate the other award winners, Dr. Froines and Dr. Denton. As Bob Sawyer once told me, good science makes good policy. And to that end, I also want to thank you for your great work in science and policy, specifically in the area of diesel emissions. I believe your work has been absolutely fundamental in identifying the harmful effects of diesel exhaust, which in turn has led to a regulatory environment that encourages technical innovation and entrepreneurial reaction, which is the very heart of Cleaire.

If I could take just a few more minutes, I'd like to share with you the short version of the Cleaire story. I think it's a great California story and should serve as a case study on how technical innovation and entrepreneurialship can be spurred by strong policy and regulatory leadership.

My interest in diesel emissions started a little over 20 years ago when I was a first year graduate student at UC Berkeley and one of Professor Dibble's first students. One afternoon, we were on campus waiting at a crosswalk when a diesel-powered bus accelerated from a stoplight and lugged up a hill. An immensely thick cloud of smoke billowed out of the tailpipe and drifted around the students, the buildings, and the trees. And ugly sight that many of us have seen before.

Professor Dibble gave me a nudge and said, "Maybe you should do something about that. And you know what? I might be able to teach you a little bit about how to do it." And what a great teacher he was.

That was the light switch moment and the uh-huh moment for me that started me down this path of diesel emission reduction. All of receiving my Ph.D. from Berkeley where I worked on a number of diesel-emission related projects, including alternative fuels and exhaust aftertreatment, I worked for several companies in the environmental technology area. There I came to learn about a remarkable technology called the diesel particulate filter, or DPF. As I learned more, I realized that the filters were extraordinarily effective, having the ability to essentially remove all of the particles from the diesel exhaust stream. But at the same time, they require complex strategies to help keep them clean. This is the process we know as regeneration. And that's when things started to get fun, as I realized this is a full-on, no holds engineering effort requiring top level thinking in the areas of catalysis, controls, sensors, fluid dynamics, and heat transfer, the whole bag. It was a playground for a Berkeley combustion scientist, and I felt at home.

In 2001, I met Kevin Shannihan, the owner of Cummins West whose company supplies diesel engines parts and service to customers in the northern half of California. At our first meeting, I told him I had ideas for developing diesel retrofits devices and a small team of very talented individuals who I thought just may be could build something that would work. Kevin told me he saw the marketplace developing here in California and he wanted to start a company to respond to the needs of his diesel engine customers, while also doing something good for the environment. He suggested that we with join forces. And this was the launching moment for Cleaire.

I can't thank Kevin enough for everything he's done. First, on the business side, he provided the full resources of his company and all the financing to provide a safe environment to incubate Cleaire. He made the sales and service organization available to me and my team so we could view the world of retrofit through the lens of the customer. He taught me a lot about the practical side of trucks. This would help shape the transformation of a technology solution into a practical solution that would work in the real world.

But beyond the basics of business, I've come to appreciate the value of Kevin's passion and vision, which are vital to keeping these ideas alive. An unnatural patients required to operate in a business driven by policy and regulation, but at all times unwavering faith that somehow, someway we would be successful.

I've also learned from Kevin a great deal on the personal side, as we shared many victories and a few defeats. He taught me that the idea of honesty, integrity must always be a priority, that there are things more important than just running a business and making money. And to that, I'm extremely grateful.

Cleaire has been a journey, and I'm grateful that despite some delays and setbacks along the way, this Board has largely stuck to your plan to regulate the end use diesel population in California and we've been able to manage the challenges of application engineering and the challenges of a complex verification process.

Now ten years into Cleaire's life, the company has sold more than 13,000 retrofits. We've upped the number since the application. We are a market leader in California. The company is on solid financial footing with operations in the Bay Area and San Diego. Our company has created hundreds of green color jobs within the state to support the design, to manufacture installation and support of diesel retrofit devices. And now we're starting to explore international opportunities as our reputation and the reputation of CARB's diesel retrofit program is spreading.

To me, Cleaire is a great California success story. You, the ARB, recognize the severe health impacts of diesel emissions and took actions to passing of regulations to clean up the in-use fleet of diesels. Our engineering team was educated and prepared by the State's university system to solve one of the great problems of the state.

A visionary entrepreneur, Kevin Shannahan poured his heart, soul, and capital into launching the company with a belief that he could provide a solution to his customers. High quality jobs and economic benefit is fed back to the state, and all the while the air gets cleaner.

Cleaire is the story about California's coming together to solve problems. The best part is that the story doesn't end here. In fact, it's just beginning. I believe that in the next five to ten years our in-stream will play a role in the near elimination of diesel PM emissions in the state. I believe our business will expand throughout the country and the world, helping others solve air quality problems while bringing economic prosperity to California through the creation of more jobs. This is a vision and a plan that I'm immensely proud to be part of.

Thank you.

(Applause)

CHAIRPERSON NICHOLS: What a wonderful way to end our meeting. You really do us all honor by your work, and it's been a terrific partnership. So thank you.

And we will be adjourned.

(Whereupon the Air Resources Board meeting adjourned at 12:08 PM)

CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing nor in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 9th day of August, 2011.

TIFFANY C. KRAFT, CSR, RPR
Certified Shorthand Reporter
License No. 12277